FAA-S-ACS-26

U.S. Department
of Transportation

Federal Aviation
Administration

Sport Pilot Airman Certification Standards for Helicopter – Simplified Flight Controls

Flight Standards Service
Washington, DC 20591

Foreword

The U.S. Department of Transportation, Federal Aviation Administration (FAA), Office of Safety Standards, Regulatory Support Division, Airman Testing Standards Branch, has published the Sport Pilot for Helicopter-Simplified Flight Controls Airman Certification Standards (ACS) to communicate the aeronautical knowledge, risk management, and flight proficiency standards for sport pilot certification Helicopter-Simplified Flight Controls.

This ACS is available for download, in PDF format, from www.faa.gov.

Comments regarding this ACS may be emailed to afs630comments@faa.gov.

The FAA created FAA-G-ACS-2, Airman Certification Standards Companion Guide for Pilots, to provide guidance considered relevant and useful to the community. The number of appendices in the ACS was reduced and much of the non-regulatory material was moved to the Airman Certification Standards Companion Guide for Pilots. Applicants, instructors, and evaluators should consult this companion guide to familiarize themselves with ACS procedures. FAA-G-ACS-2 is available for download, in PDF format, from www.faa.gov.

Table of Contents

Introduction

Airman Certification Standards Concept

The goal of the airman certification process is to ensure the applicant possesses the knowledge, ability to manage risks, and skill consistent with the privileges of the certificate being exercised, in order to act as pilot- in- command (PIC).

Safe operations in today's National Airspace System (NAS) require the integration of aeronautical knowledge, risk management, and flight proficiency standards. To accomplish these goals, the FAA drew upon the expertise of organizations and individuals across the aviation and training community to develop the ACS. The ACS integrates the elements of knowledge, risk management, and skill required for each airman certificate or privilege. It thus forms a more comprehensive standard for what an applicant must know, consider, and do to demonstrate proficiency to pass the tests required for issuance of the applicable airman certificate or privilege.

Area of Operation I. Preflight Preparation

Task A. Pilot Qualifications

References: *14 CFR parts 1, 61, 68, 91; AC 68-1; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; AFM/POH/FAA Operating Limitations*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with airman and medical eligibility including privileges, limitations, currency, and operating as pilot-in-command as a sport pilot.

Knowledge:	The applicant demonstrates understanding of:
SH.I.A.K1	Certification requirements, recent flight experience, and recordkeeping.
SH.I.A.K2	Privileges and limitations.
SH.I.A.K3	Medical eligibility and temporary disqualifications.
SH.I.A.K4	Documents required to exercise sport pilot privileges.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.I.A.R1	Proficiency versus currency.
SH.I.A.R2	Flying an unfamiliar helicopter-simplified flight controls or operating with unfamiliar flight display systems and avionics.

Skills:	The applicant exhibits the skill to:
SH.I.A.S1	Apply requirements to act as pilot-in-command (PIC) under Visual Flight Rules (VFR) in a scenario given by the evaluator.

Task B. Airworthiness Requirements

References: *14 CFR parts 21 and/or 23 as applicable, 27, 29, 39, 43, 91; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25, Aircraft Operating Limitations*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with airworthiness requirements, including aircraft certificates.

Knowledge:	The applicant demonstrates understanding of:
SH.I.B.K1	General airworthiness requirements and compliance for a helicopter-simplified flight controls, including:
SH.I.B.K1a	a. Location and expiration dates of required aircraft certificates
SH.I.B.K1b	b. Required inspections and aircraft logbook documentation
SH.I.B.K1c	c. Airworthiness Directives and Special Airworthiness Information Bulletins (as applicable to the aircraft presented for the practical test)
SH.I.B.K1d	d. Purpose and procedure for obtaining a special flight permit
SH.I.B.K1e	e. Owner/Operator and pilot-in-command responsibilities
SH.I.B.K2	Pilot-performed preventive maintenance.
SH.I.B.K3	Equipment requirements for day VFR flight, including:

SH.I.B.K3a	a. Flying with inoperative equipment
SH.I.B.K3b	b. Using an approved Minimum Equipment List (MEL)
SH.I.B.K3c	c. Kinds of Operation Equipment List (KOEL)
SH.I.B.K3d	d. Required discrepancy records or placards
SH.I.B.K4	Special airworthiness certificate aircraft operating limitations, as applicable.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.I.B.R1	Inoperative equipment discovered prior to flight.

Skills: The applicant exhibits the skill to:

SH.I.B.S1	Locate and describe helicopter-simplified flight controls airworthiness and registration information.
SH.I.B.S2	Determine the helicopter-simplified flight controls is airworthy in the scenario given by the evaluator.
SH.I.B.S3	Apply appropriate procedures for operating with inoperative equipment in the scenario given by the evaluator.

Task C. Weather Information

References: *14 CFR part 91; AC 91-92; AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25, FAA-H-8083-28*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with weather information for a flight under VFR.

Note: *If K2 is selected, the evaluator must assess the applicant's knowledge of at least three sub-elements.*

Note: *If K3 is selected, the evaluator must assess the applicant's knowledge of at least three sub-elements.*

Knowledge: The applicant demonstrates understanding of:

SH.I.C.K1	Sources of weather data (e.g., National Weather Service, Flight Service) for flight planning purposes.
SH.I.C.K2	Acceptable weather products and resources required for preflight planning, current and forecast weather for departure, en route, and arrival phases of flight such as:
SH.I.C.K2a	a. Airport Observations (METAR, SPECI, AWOS, ASOS) and Pilot Weather Reports (PIREPs)
SH.I.C.K2b	b. Surface Analysis Chart, Ceiling and Visibility Chart (CVA)
SH.I.C.K2c	c. Terminal Aerodrome Forecasts (TAF)
SH.I.C.K2d	d. Graphical Forecasts for Aviation (GFA)
SH.I.C.K2e	e. Wind and Temperature Aloft Forecast (FB)
SH.I.C.K2f	f. Convective Outlook (AC)
SH.I.C.K2g	g. Inflight Aviation Weather Advisories including Airmen's Meteorological Information (AIRMET), Significant Meteorological Information (SIGMET), and Convective SIGMET
SH.I.C.K3	Meteorology applicable to the departure, en route, alternate, and destination under visual flight rules (VFR) in Visual Meteorological Conditions (VMC), including expected climate and hazardous conditions such as:
SH.I.C.K3a	a. Atmospheric composition and stability

SH.I.C.K3b	b. Wind (e.g., windshear, mountain wave, factors affecting wind, etc.)
SH.I.C.K3c	c. Temperature, heat exchange, and temperature inversion
SH.I.C.K3d	d. Moisture/precipitation
SH.I.C.K3e	e. Weather system formation, including air masses and fronts
SH.I.C.K3f	f. Clouds
SH.I.C.K3g	g. Turbulence
SH.I.C.K3h	h. Thunderstorms and microbursts
SH.I.C.K3i	i. Icing and freezing level information
SH.I.C.K3j	j. Fog/mist
SH.I.C.K3k	k. Frost
SH.I.C.K3l	l. Obstructions to visibility (e.g., smoke, haze, volcanic ash, etc.)
SH.I.C.K4	Flight deck instrument displays of digital weather and aeronautical information.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.I.C.R1	Making the go/no-go and continue/divert decisions, including:
SH.I.C.R1a	a. Circumstances that would make diversion prudent
SH.I.C.R1b	b. Personal weather minimums
SH.I.C.R1c	c. Hazardous weather conditions, including known or forecast icing or turbulence aloft
SH.I.C.R2	Use and limitations of:
SH.I.C.R2a	a. Installed onboard weather equipment
SH.I.C.R2b	b. Aviation weather reports and forecasts
SH.I.C.R2c	c. In-flight weather resources

Skills: The applicant exhibits the skill to:

SH.I.C.S1	Use available aviation weather resources to obtain an adequate weather briefing.
SH.I.C.S2	Analyze the implications of at least three of the conditions listed in K3a through K3l, using actual weather or weather conditions provided by the evaluator.
SH.I.C.S3	Correlate weather information to make a go/no-go decision.

Task D. Cross-Country Flight Planning

References: *14 CFR part 91; AC 91.21-1; AIM; Chart Supplements; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; Helicopter Route Charts; NOTAMs; VFR Navigation Charts*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with cross-country flights and VFR flight planning.

Note: *Preparation, presentation, and explanation of a computer-generated flight plan is an acceptable option.*

Knowledge: The applicant demonstrates understanding of:

SH.I.D.K1	Route planning, including consideration of different classes and special use airspace (SUA) and selection of appropriate and available navigation/communication systems and facilities including the use of:
SH.I.D.K1a	a. Use of an electronic flight bag (EFB), if used
SH.I.D.K1b	b. Chart Supplements
SH.I.D.K1c	c. Aeronautical charts
SH.I.D.K1d	d. Notices to Air Missions (NOTAMs)
SH.I.D.K2	Altitude selection accounting for terrain and obstacles, autorotation requirements of the helicopter-simplified flight controls, VFR cruising altitudes, and the effect of wind.
SH.I.D.K3	Calculating:
SH.I.D.K3a	a. Time, climb and descent rates, course, distance, heading, pressure altitude, density altitude, true airspeed, and groundspeed
SH.I.D.K3b	b. Estimated time of arrival, including conversion to universal coordinated time (UTC)
SH.I.D.K3c	c. Fuel requirements, including reserve
SH.I.D.K4	Elements of a VFR flight plan.
SH.I.D.K5	Procedures for filing, activating, and closing a VFR flight plan.
SH.I.D.K6	In-flight intercept procedures.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.I.D.R1	Pilot.
SH.I.D.R2	Aircraft.
SH.I.D.R3	Environment (e.g., weather, airports, airspace, terrain, obstacles, including wire strike hazards).
SH.I.D.R4	External pressures.
SH.I.D.R5	Limitations of air traffic control (ATC) services.
SH.I.D.R6	Fuel planning.
SH.I.D.R7	Use an electronic flight bag (EFB), as applicable.

Skills:	The applicant exhibits the skill to:
SH.I.D.S1	Prepare, present, and explain a cross-country flight plan assigned by the evaluator, including a risk analysis based on real-time weather, to the first fuel stop.
SH.I.D.S2	Apply pertinent information from appropriate and current aeronautical charts, Chart Supplements; Notices to Air Missions (NOTAMs) relative to airport/heliport/helipad/landing area, runway and taxiway closures; and other flight publications.
SH.I.D.S3	Create a navigation plan and simulate filing a VFR flight plan.
SH.I.D.S4	Recalculate fuel reserves based on a scenario provided by the evaluator.
SH.I.D.S5	Use an electronic flight bag (EFB), as applicable.

Task E. National Airspace System

References: *14 CFR parts 71, 91, 93; AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; Helicopter Route Charts; VFR Navigation Charts; AIM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with National Airspace System (NAS) operating under VFR as a sport pilot.

Knowledge:	The applicant demonstrates understanding of:
SH.I.E.K1	Airspace classes and associated requirements, sport pilot privileges, and limitations.
SH.I.E.K2	Chart symbols.
SH.I.E.K3	Special use airspace (SUA), special flight rules areas (SFRA), temporary flight restrictions (TFR), and other airspace areas.
Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.I.E.R1	Various classes and types of airspace.
Skills:	The applicant exhibits the skill to:
SH.I.E.S1	Identify and comply with the requirements for basic VFR weather minimums and flying in particular classes of airspace.
SH.I.E.S2	Correctly identify airspace and operate in accordance with associated communication and equipment requirements.
SH.I.E.S3	Identify the requirements for operating in SUA or within a TFR. Identify and comply with special air traffic rules (SATR) and SFRA operations, as applicable.

Task F. Performance and Limitations

References: *FAA-H-8083-1, FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with operating a helicopter-simplified flight controls safely within the parameters of its performance capabilities and limitations.

Knowledge:	The applicant demonstrates understanding of:
SH.I.F.K1	Elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance.
SH.I.F.K2	Factors affecting performance, including:
SH.I.F.K2a	a. Atmospheric conditions
SH.I.F.K2b	b. Pilot technique
SH.I.F.K2c	c. Helicopter-Simplified Flight Control configuration
SH.I.F.K2d	d. Airport, heliport, helipad, or unprepared surface environment
SH.I.F.K3	Loading and weight and balance.
SH.I.F.K4	Aerodynamics.
SH.I.F.K5	Height/Velocity (H/V) diagram according to the Rotorcraft Flight Manual (RFM), as applicable.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.I.F.R1	Use of performance charts, tables, and data.
SH.I.F.R2	Limitations of helicopter-simplified flight controls.
SH.I.F.R3	Possible differences between calculated performance and actual performance.
SH.I.F.R4	Exceeding weight limits.
SH.I.F.R5	Operating outside of CG limits.
SH.I.F.R6	Shifting, adding, and removing weight.
SH.I.F.R7	Retreating blade stall, as applicable.
SH.I.F.R8	Situations that lead to loss of tail rotor/antitorque effectiveness (LTE), as applicable.

Skills:	The applicant exhibits the skill to:
SH.I.F.S1	Compute the weight and balance, correct out-of-center of gravity loading errors and determine if the weight and balance remains within limits during all phases of flight.
SH.I.F.S2	Use appropriate helicopter-simplified flight controls performance charts, tables, and data.

Task G. Operation of Systems

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with safe operation of systems on the helicopter-simplified flight controls provided for the flight test.

Note: *If K1 is selected, the evaluator must assess the applicant's knowledge of at least three sub-elements.*

Knowledge:	The applicant demonstrates understanding of:
SH.I.G.K1	Helicopter-Simplified Flight Control systems, including:
SH.I.G.K1a	a. Flight controls, trim, and if installed, stability control
SH.I.G.K1b	b. Powerplant(s)
SH.I.G.K1c	c. Main rotor(s) and antitorque systems, as applicable
SH.I.G.K1d	d. Transmission and associated drive shafts
SH.I.G.K1e	e. Fuel, oil, and hydraulic
SH.I.G.K1f	f. Avionics
SH.I.G.K1g	g. Landing gear, brakes, steering, skids, or floats, as applicable
SH.I.G.K1h	h. Electrical
SH.I.G.K1i	i. Pitot-static, vacuum/pressure, and associated flight instruments
SH.I.G.K1j	j. Environmental
SH.I.G.K1k	k. Anti-icing and deicing, including carburetor heat, as applicable
SH.I.G.K2	Indications of and procedures for managing system abnormalities or failures.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.I.G.R1	Detection of system malfunctions or failures.
SH.I.G.R2	Management of a system failure.
SH.I.G.R3	Monitoring and management of automated systems.

Skills:	The applicant exhibits the skill to:
SH.I.G.S1	Operate at least three of the helicopter-simplified flight control's systems listed in K1a through K1k.
SH.I.G.S2	Complete the appropriate checklist(s).

Task H. Human Factors

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with personal health, flight physiology, and aeromedical and human factors related to safety of flight.

Knowledge:	The applicant demonstrates understanding of:
SH.I.H.K1	Symptoms, recognition, causes, effects, and corrective actions associated with aeromedical and physiological issues, including:
SH.I.H.K1a	a. Hypoxia
SH.I.H.K1b	b. Hyperventilation
SH.I.H.K1c	c. Middle ear and sinus problems
SH.I.H.K1d	d. Spatial disorientation
SH.I.H.K1e	e. Motion sickness
SH.I.H.K1f	f. Carbon monoxide poisoning
SH.I.H.K1g	g. Stress
SH.I.H.K1h	h. Fatigue
SH.I.H.K1i	i. Dehydration and nutrition
SH.I.H.K1j	j. Hypothermia
SH.I.H.K1k	k. Optical illusions
SH.I.H.K1l	l. Dissolved nitrogen in the bloodstream after scuba dives
SH.I.H.K2	Regulations regarding use of alcohol and drugs.
SH.I.H.K3	Effects of alcohol, drugs, and over-the-counter medications.
SH.I.H.K4	Aeronautical Decision-Making (ADM) to include using Crew Resource Management (CRM) or Single-Pilot Resource Management (SRM), as appropriate.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.I.H.R1	Aeromedical and physiological issues.

SH.I.H.R2	Hazardous attitudes.
SH.I.H.R3	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.I.H.R4	Confirmation and expectation bias.

Skills: The applicant exhibits the skill to:

SH.I.H.S1	Associate the symptoms and effects for at least three of the conditions listed in K1a through K1l with the cause(s) and corrective action(s).
SH.I.H.S2	Perform self-assessment, including fitness for flight and personal minimums, for actual flight or a scenario given by the evaluator.

Area of Operation II. Preflight Procedures

Note: *For single-seat applicants, the evaluator shall select at least Tasks A and C.*

Task A. Preflight Assessment

References: *AC 91-32; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25, FAA-H-8083-28; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with preparation for safe flight.

Knowledge:	The applicant demonstrates understanding of:
SH.II.A.K1	Pilot self-assessment.
SH.II.A.K2	Determining that the helicopter-simplified flight controls to be used is in an airworthy condition.
SH.II.A.K3	Helicopter-simplified flight controls preflight inspection, including:
SH.II.A.K3a	a. Which items should be inspected
SH.II.A.K3b	b. The reasons for checking each item
SH.II.A.K3c	c. How to detect possible defects
SH.II.A.K3d	d. The associated regulations
SH.II.A.K4	Environmental factors, including weather, terrain, route selection, and obstructions.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.II.A.R1	Pilot.
SH.II.A.R2	Aircraft.
SH.II.A.R3	Environment (e.g., weather, icing, airports/heliports/helipads/landing areas, airspace, terrain, obstacles).
SH.II.A.R4	External pressures.
SH.II.A.R5	Aviation security concerns.

Skills:	The applicant exhibits the skill to:
SH.II.A.S1	Inspect the helicopter-simplified flight controls with reference to an appropriate checklist.
SH.II.A.S2	Verify the helicopter-simplified flight controls is in condition for safe flight and conforms to its type design.
SH.II.A.S3	Perform self-assessment.
SH.II.A.S4	Continue to assess the environment for safe flight.

Task B. Flight Deck Management

References: *14 CFR part 91; FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with flight deck management practices.

Note: *See Appendix 2: Safety of Flight.*

Knowledge:	The applicant demonstrates understanding of:
SH.II.B.K1	Passenger briefing requirements, including operation and required use of safety restraint systems, with the exception of single-seat aircraft.
SH.II.B.K2	Use of appropriate checklists.
SH.II.B.K3	Requirements for current and appropriate navigation data.
SH.II.B.K4	Securing items and cargo.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.II.B.R1	Use of systems or equipment, including automation and portable electronic devices.
SH.II.B.R2	Inoperative equipment.
SH.II.B.R3	Passenger distractions.

Skills:	The applicant exhibits the skill to:
SH.II.B.S1	Secure all items in the aircraft.
SH.II.B.S2	Conduct an appropriate passenger briefing, including identifying the pilot-in-command (PIC), use of safety belts, shoulder harnesses, doors, passenger conduct, rotor blade avoidance, and emergency procedures, with the exception of single-seat aircraft.
SH.II.B.S3	Properly program and manage helicopter-simplified flight controls automation, as applicable.
SH.II.B.S4	Appropriately manage risks by utilizing ADM, including SRM/CRM.

Task C. Powerplant Starting and Rotor Engagement

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with recommended powerplant starting and rotor engagement procedures.

Knowledge:	The applicant demonstrates understanding of:
SH.II.C.K1	Starting under various conditions.
SH.II.C.K2	Starting procedures, including the use of external power, as applicable.
SH.II.C.K3	Limitations associated with starting.
SH.II.C.K4	Conditions leading to and procedures for an aborted start.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.II.C.R1	Rotor(s) engagement, as applicable.
SH.II.C.R2	Use of external power unit.
SH.II.C.R3	Limitations during starting.

Skills:	The applicant exhibits the skill to:

SH.II.C.S1	Position the helicopter-simplified flight controls properly considering structures, surface conditions, other aircraft, wind, and the safety of nearby persons and property.
SH.II.C.S2	Use flight control frictions, as applicable.
SH.II.C.S3	Complete the appropriate checklist(s).
SH.II.C.S4	Engage and manage the rotor system, as appropriate.

Task D. Before Takeoff Check

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with before takeoff check.

Knowledge:	The applicant demonstrates understanding of:
SH.II.D.K1	Purpose of before takeoff checklist items, including:
SH.II.D.K1a	a. Reasons for checking each item
SH.II.D.K1b	b. Detecting malfunctions
SH.II.D.K1c	c. Configuring the helicopter-simplified flight controls as recommended by the manufacturer
Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.II.D.R1	Division of attention while conducting before takeoff checks.
Skills:	The applicant exhibits the skill to:
SH.II.D.S1	Complete the appropriate checklist(s).
SH.II.D.S2	Review takeoff performance and emergency procedures.
SH.II.D.S3	Verify that the powerplant temperature(s) and pressure(s) are suitable for takeoff.
SH.II.D.S4	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.II.D.S5	Divide attention inside and outside the helicopter-simplified flight controls.

Area of Operation III. Airport and Heliport Operations

Task A. Runway/Taxiway/Heliport/Helipad Signs, Markings, and Lighting

References: *14 CFR part 91; AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with runway/taxiway/heliport/helipad signs, markings and lighting.

Knowledge:	The applicant demonstrates understanding of:
SH.III.A.K1	Airport runway, heliport, helipad, taxiway signs, markings, and lighting.
SH.III.A.K2	Airport movement area.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.III.A.R1	Interpretation of signs, markings, or lighting.
SH.III.A.R2	Landing site dimensions and limitations.
SH.III.A.R3	Conflict with aircraft, vehicles, and persons.
SH.III.A.R4	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.III.A.R5	Runway incursion.

Skills:	The applicant exhibits the skill to:
SH.III.A.S1	Comply with airport/heliport/helipad signs, markings, and lighting encountered, as applicable to the helicopter-simplified flight controls provided for the practical test.

Task B. Communications, Light Signals, and Runway Lighting Systems

References: *14 CFR part 91; AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with normal and emergency radio communications, air traffic control (ATC) light signals, and runway lighting systems.

Knowledge:	The applicant demonstrates understanding of:
SH.III.B.K1	How to obtain appropriate radio frequencies.
SH.III.B.K2	Proper radio communication procedures and air traffic control (ATC) phraseology.
SH.III.B.K3	ATC light signal recognition.
SH.III.B.K4	Appropriate use of transponder(s).
SH.III.B.K5	Lost communication procedures.
SH.III.B.K6	Equipment issues that could cause loss of communication.
SH.III.B.K7	Radar assistance.
SH.III.B.K8	National Transportation Safety Board (NTSB) accident/incident reporting.
SH.III.B.K9	Runway Status Lighting Systems.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.III.B.R1	Communication.
SH.III.B.R2	Deciding if and when to declare an emergency.
SH.III.B.R3	Use of non-standard phraseology.

Skills:	The applicant exhibits the skill to:
SH.III.B.S1	Select and activate appropriate frequencies.
SH.III.B.S2	Transmit using standard phraseology and procedures as specified in the Aeronautical Information Manual (AIM) and Pilot/Controller Glossary.
SH.III.B.S3	Acknowledge radio communications and comply with ATC instructions or as directed by the evaluator.

Task C. Traffic Patterns

References: *14 CFR part 91; AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with traffic patterns.

Knowledge:	The applicant demonstrates understanding of:
SH.III.C.K1	Towered and nontowered airport/heliport/helipad/landing area operations and restrictions.
SH.III.C.K2	Traffic pattern for the current conditions.
SH.III.C.K3	Right-of-way rules.
SH.III.C.K4	Use of automated weather and airport/heliport information.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.III.C.R1	Collision hazards.
SH.III.C.R2	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.III.C.R3	Windshear and wake turbulence.

Skills:	The applicant exhibits the skill to:
SH.III.C.S1	Identify and interpret airport/heliport/helipad/landing area runways, taxiways, markings, signs, and lighting.
SH.III.C.S2	Comply with recommended helicopter traffic pattern procedures, as appropriate.
SH.III.C.S3	Correct for wind drift to maintain the proper ground track.
SH.III.C.S4	Maintain orientation with the runway/landing area in use, as applicable.
SH.III.C.S5	Maintain traffic pattern altitude, ±100 feet, and the appropriate airspeed, ±10 knots.
SH.III.C.S6	Maintain situational awareness and proper spacing from other traffic or avoid the flow of fixed-wing traffic, as appropriate.

Area of Operation IV. Hovering Maneuvers

Note: *Task D will be tested in addition to the other Tasks if the applicant supplies a helicopter-simplified flight controls with wheel-type landing gear.*

Task A. Vertical Takeoff and Landing

References: *14 CFR part 91; AC 90-95; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with vertical takeoff and landing from a hover.

Knowledge:	The applicant demonstrates understanding of:
SH.IV.A.K1	Elements related to a vertical takeoff to a hover and landing from a hover.
SH.IV.A.K2	Effect of wind on flight control inputs.
SH.IV.A.K3	Effect of weight and balance and various centers of gravity.
SH.IV.A.K4	Ground effect.
Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.IV.A.R1	Loss of tail rotor effectiveness (LTE), as applicable.
SH.IV.A.R2	Dynamic rollover.
SH.IV.A.R3	Ground resonance, as applicable.
SH.IV.A.R4	Powerplant failure during hover.
Skills:	The applicant exhibits the skill to:
SH.IV.A.S1	Complete the appropriate checklist(s).
SH.IV.A.S2	Comply with air traffic control (ATC) or evaluator instructions and make radio calls as appropriate.
SH.IV.A.S3	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.IV.A.S4	Ascend to and maintain recommended hovering altitude, and descend from recommended hovering altitude in headwind, crosswind, and tailwind conditions, without drift.
SH.IV.A.S5	Maintain recommended hovering altitude, ±1/2 of that altitude within 10 feet of the surface, if above 10 feet, ±5 feet.
SH.IV.A.S6	Maintain position within 4 feet of a designated point with no aft movement.
SH.IV.A.S7	Descend vertically to within 4 feet of the designated touchdown point.
SH.IV.A.S8	Maintain specified heading, ± 10° .

Task B. Hover Taxi

References: *AC 91-73; AIM; Chart Supplements; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with hover taxi operations, including runway incursion avoidance.

Knowledge:	The applicant demonstrates understanding of:

SH.IV.B.K1	Current airport aeronautical references and information resources such as the Chart Supplement, airport diagram, and Notices to Air Missions (NOTAMs).
SH.IV.B.K2	Hover taxi instructions, clearances and limitations.
SH.IV.B.K3	Airport/heliport/helipad/landing area, signs, markings, and lighting.
SH.IV.B.K4	Visual indicators for wind.
SH.IV.B.K5	Aircraft lighting, as appropriate.
SH.IV.B.K6	Procedures for:
SH.IV.B.K6a	Pilot activities during taxiing.
SH.IV.B.K6b	Safe hover taxi at towered and non-towered airports/heliports/helipads/landing areas.
SH.IV.B.K6c	Entering or crossing runways.
SH.IV.B.K7	Height/Velocity (H/V) considerations, as applicable.
SH.IV.B.K8	Aircraft operating limitations.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.IV.B.R1	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.IV.B.R2	Reduced visibility.
SH.IV.B.R3	Runway incursion.
SH.IV.B.R4	Other aircraft, vehicles, persons, and hazards.
SH.IV.B.R5	Hazardous effects of downwash.
SH.IV.B.R6	Main rotor(s), tail rotor, and tail strike hazards, as applicable.
SH.IV.B.R7	Height/Velocity (H/V) considerations, as applicable.
SH.IV.B.R8	Confirmation or expectation bias as related to taxi instructions or intentions.

Skills: The applicant exhibits the skill to:

SH.IV.B.S1	Complete the appropriate checklist(s).
SH.IV.B.S2	Receive and correctly read back clearances/instructions, as applicable.
SH.IV.B.S3	Use an airport diagram or taxi chart during taxi, if published, and maintain situational awareness.
SH.IV.B.S4	Comply with airport/heliport taxiway markings, signals, and signs.
SH.IV.B.S5	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.IV.B.S6	Maintain a straight ground track within ±4 feet of a designated ground track.
SH.IV.B.S7	Maintain recommended hovering altitude, ±1/2 of that altitude within 10 feet of the surface, if above 10 feet, ±5 feet.
SH.IV.B.S8	Hover taxi over specified ground references, demonstrating forward, sideward, and rearward hovering and hovering turns.

SH.IV.B.S9	Maintain a constant rate of turn at pivot points.
SH.IV.B.S10	Maintain a position within 4 feet of each pivot point during turns.
SH.IV.B.S11	Make a 360° pivoting turn, left and right, stopping within 10° of a specified heading.
SH.IV.B.S12	Make smooth, timely, and correct control application during the maneuver.

Task C. Air Taxi

References: *AC 91-73; AIM; Chart Supplements; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with air taxi operations.

Knowledge:	The applicant demonstrates understanding of:
SH.IV.C.K1	Current airport aeronautical references and information resources such as the Chart Supplement, airport diagram, and Notices to Air Missions (NOTAMs).
SH.IV.C.K2	Air taxi instructions, clearances, and limitations.
SH.IV.C.K3	Airport/heliport/helipad/landing area, signs, markings, and lighting.
SH.IV.C.K4	Visual indicators for wind.
SH.IV.C.K5	Aircraft lighting, as appropriate.
SH.IV.C.K6	Procedures for:
SH.IV.C.K6a	a. Pilot activities during taxiing
SH.IV.C.K6b	b. Safe air taxi at towered and non-towered airports
SH.IV.C.K6c	c. Overflying of runways
SH.IV.C.K7	Height/Velocity (H/V) considerations, as applicable.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.IV.C.R1	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.IV.C.R2	Reduced visibility taxi operations.
SH.IV.C.R3	Runway incursion.
SH.IV.C.R4	Main rotor(s), tail rotor, and tail strike hazards, as applicable.
SH.IV.C.R5	H/V diagram performance in case of powerplant failure, as applicable.
SH.IV.C.R6	Confirmation or expectation bias as related to taxi instructions or intentions.

Skills:	The applicant exhibits the skill to:
SH.IV.C.S1	Complete the appropriate checklist(s).
SH.IV.C.S2	Use an airport diagram or taxi chart during taxi, if published, and maintain situational awareness.
SH.IV.C.S3	Select a safe airspeed and altitude.

SH.IV.C.S4	Maintain desired track and groundspeed in headwind and crosswind conditions, avoiding conditions that might lead to loss of tail rotor/antitorque effectiveness, as applicable.
SH.IV.C.S5	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.IV.C.S6	Comply with airport/heliport/helipad/landing area markings, lights, signs, and ATC instructions, as applicable.
SH.IV.C.S7	Maintain specified altitude, ±10 feet.

Task D. Taxiing with Wheel-Type Landing Gear

References: *AC 91-73; AIM; Chart Supplements; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with ground taxi operations, in a wheel-type aircraft, including runway incursion avoidance.

Knowledge:	The applicant demonstrates understanding of:
SH.IV.D.K1	Current airport aeronautical references and information resources such as the Chart Supplement, airport diagram, and Notices to Air Missions (NOTAMs).
SH.IV.D.K2	Taxi instructions/clearances.
SH.IV.D.K3	Airport/heliport/helipad/landing area, signs, markings, and lighting.
SH.IV.D.K4	Visual indicators for wind.
SH.IV.D.K5	Aircraft lighting, as appropriate.
SH.IV.D.K6	Procedures for:
SH.IV.D.K6a	a. Appropriate flight deck activities prior to taxi, including route planning and identifying the location of Hot Spots
SH.IV.D.K6b	b. Safe taxi at towered and non-towered airports
SH.IV.D.K6c	c. Entering or crossing runways

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.IV.D.R1	Activities and distractions.
SH.IV.D.R2	Confirmation or expectation bias as related to taxi instructions or intentions.
SH.IV.D.R3	Runway incursion.
SH.IV.D.R4	Speed during taxi and turns.
SH.IV.D.R5	Appropriate thrust vector and brake use.
SH.IV.D.R6	Airframe and rotor clearances during taxi.

Skills:	The applicant exhibits the skill to:
SH.IV.D.S1	Complete the appropriate checklist(s).
SH.IV.D.S2	Use an appropriate airport/heliport diagram or taxi chart, if published.
SH.IV.D.S3	Properly position nosewheel/tailwheel, as applicable, locked or unlocked.

SH.IV.D.S4	Position the flight controls properly for the existing wind conditions, with the landing gear in contact with the surface, avoiding conditions that might lead to loss of directional control.
SH.IV.D.S5	Properly use cyclic, collective or simplified flight controls, and brakes as applicable to control speed while taxiing.
SH.IV.D.S6	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.IV.D.S7	Maintain specified track within 4 feet.
SH.IV.D.S8	Position the helicopter-simplified flight controls relative to hold lines or a specified point.
SH.IV.D.S9	Receive and comply with ATC clearances/instructions, if applicable.
SH.IV.D.S10	Comply with airport/heliport taxiway markings, lights, and signals.

Task E. Slope Operations

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with slope operations.

Note: *See Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.*

Knowledge: The applicant demonstrates understanding of:

SH.IV.E.K1	Elements related to slope operations.
SH.IV.E.K2	Factors used for selecting an appropriate slope.
SH.IV.E.K3	Effect of wind on slope operations.
SH.IV.E.K4	Dynamic rollover considerations during slope operations and preventive/recovery techniques.
SH.IV.E.K5	Helicopter-Simplified Flight Controls slope limitations.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.IV.E.R1	Operations on a slope.
SH.IV.E.R2	Conditions leading to loss of tail rotor/antitorque effectiveness, as applicable.
SH.IV.E.R3	Embarking or disembarking passengers and rotor blade hazards.
SH.IV.E.R4	Conditions leading to dynamic rollover.
SH.IV.E.R5	Surface conditions.
SH.IV.E.R6	Collision hazards.
SH.IV.E.R7	Exceeding the manufacturer's slope limitations.

Skills: The applicant exhibits the skill to:

SH.IV.E.S1	Select a suitable slope.
SH.IV.E.S2	Complete the appropriate checklist(s).

SH.IV.E.S3	Properly approach the slope considering wind effect and obstacles.
SH.IV.E.S4	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.IV.E.S5	Maintain heading and position over the ground and prevent movement of aircraft on slope.
SH.IV.E.S6	Make a smooth positive descent to touch the upslope skid or wheel(s) on the sloping surface.
SH.IV.E.S7	Recognize if slope is too steep and abandon the operation prior to reaching flight control limits.
SH.IV.E.S8	Maintain positive control while lowering the downslope skid or wheel to touchdown.
SH.IV.E.S9	Neutralize controls after landing, as applicable.
SH.IV.E.S10	Make a smooth transition from the slope to a stabilized hover parallel to the slope.
SH.IV.E.S11	Properly move away from the slope.
SH.IV.E.S12	Maintain a specified heading throughout the operation, ±10°.

Area of Operation V. Takeoffs, Landings, and Go-Arounds

Note: *The evaluator shall select Task A, B, C, D, E and at least one other Task in accordance with the aircraft's operating characteristics. Task I will be tested in addition to the other Tasks if the applicant supplies a helicopter-simplified flight controls with wheel-type landing gear.*

Task A. Normal Takeoff and Climb

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with normal takeoff, climb operations, and rejected takeoff procedures.

Note: *If a crosswind condition does not exist, the applicant's knowledge of crosswind elements must be evaluated through oral testing.*

Knowledge:	The applicant demonstrates understanding of:
SH.V.A.K1	Effects of atmospheric conditions, including wind, on takeoff and climb performance.
SH.V.A.K2	Factors affecting the profile of the height/velocity (H/V) diagram, as applicable.
Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.V.A.R1	Selection of takeoff path based on helicopter-simplified flight controls performance and limitations, available distance, and wind.
SH.V.A.R2	Effects of:
SH.V.A.R2a	a. Crosswind
SH.V.A.R2b	b. Windshear
SH.V.A.R2c	c. Tailwind
SH.V.A.R2d	d. Turbulence, including wake turbulence
SH.V.A.R2e	e. Runway/departure point surface/condition
SH.V.A.R3	Abnormal operations, including planning for::
SH.V.A.R3a	a. Rejected takeoff
SH.V.A.R3b	b. Powerplant failure in takeoff/climb phase of flight
SH.V.A.R4	Collision hazards.
SH.V.A.R5	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.V.A.R6	Runway incursion.
Skills:	The applicant exhibits the skill to:
SH.V.A.S1	Complete the appropriate checklist(s).
SH.V.A.S2	Make radio calls as appropriate.
SH.V.A.S3	Verify correct runway, if at an airport.
SH.V.A.S4	Determine wind direction with or without visible wind direction indicators.

SH.V.A.S5	Clear the area, taxi into the takeoff position, and align the helicopter-simplified flight controls on the runway centerline or with takeoff path.
SH.V.A.S6	Establish a stationary position on the surface or a stabilized hover, prior to takeoff in headwind and crosswind conditions.
SH.V.A.S7	Confirm takeoff power and instrument indications prior to forward movement.
SH.V.A.S8	After clearing all obstacles, transition to normal climb attitude, airspeed, ±10 knots, and power setting.
SH.V.A.S9	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.V.A.S10	Maintain proper ground track with crosswind correction, as needed.
SH.V.A.S11	Comply with noise abatement procedures, as applicable.
SH.V.A.S12	Use runway incursion avoidance procedures, if applicable.

Task B. Normal and Crosswind Approach

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with a normal and crosswind approach.

Note: *If a crosswind condition does not exist, the applicant's knowledge of crosswind elements must be evaluated through oral testing.*

Knowledge: The applicant demonstrates understanding of:

SH.V.B.K1	Effects of wind, weight, altitude, and temperature on performance.
SH.V.B.K2	Wind correction techniques on approach and landing.
SH.V.B.K3	Landing surface, obstructions, and selection of a suitable touchdown point.
SH.V.B.K4	Factors affecting the profile of the height/velocity (H/V) diagram, as applicable.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.V.B.R1	Selection of approach path and landing based on aircraft performance and limitations, and wind.
SH.V.B.R2	Effects of:
SH.V.B.R2a	a. Crosswind
SH.V.B.R2b	b. Windshear
SH.V.B.R2c	c. Tailwind
SH.V.B.R2d	d. Turbulence, including wake turbulence
SH.V.B.R2e	e. Vortex ring state (VRS)
SH.V.B.R2f	f. Touchdown surface and condition
SH.V.B.R3	Go-around/rejected landing.
SH.V.B.R4	Collision hazards.
SH.V.B.R5	Distractions, task prioritization, loss of situational awareness, or disorientation.

SH.V.B.R6	Loss of tail rotor effectiveness (LTE), as applicable.

Skills: The applicant exhibits the skill to:

SH.V.B.S1	Complete the appropriate checklist(s).
SH.V.B.S2	Make radio calls as appropriate.
SH.V.B.S3	Determine wind direction with or without visible wind direction indicators.
SH.V.B.S4	Align the helicopter-simplified flight controls with the correct/assigned runway or touchdown point.
SH.V.B.S5	Scan the landing area/touchdown point and adjoining area for traffic and obstructions.
SH.V.B.S6	Maintain proper ground track with crosswind correction, if necessary.
SH.V.B.S7	Establish and maintain a normal approach angle and rate of closure.
SH.V.B.S8	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.V.B.S9	Arrive at the termination point, on the surface or at a stabilized hover, ±4 feet.
SH.V.B.S10	Use runway incursion avoidance procedures, if applicable.

Task C. Maximum Performance Takeoff and Climb

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with maximum performance takeoff and climb.

Knowledge: The applicant demonstrates understanding of:

SH.V.C.K1	Situations where this maneuver is appropriate.
SH.V.C.K2	Effects of atmospheric conditions, including wind and temperature, on takeoff and climb performance.
SH.V.C.K3	Factors affecting the profile of the height/velocity (H/V) diagram, as applicable.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.V.C.R1	Selection of takeoff path based on helicopter-simplified flight controls performance and limitations, available distance, and wind.
SH.V.C.R2	Effects of:
SH.V.C.R2a	a. Crosswind
SH.V.C.R2b	b. Windshear
SH.V.C.R2c	c. Tailwind
SH.V.C.R2d	d. Turbulence, including wake turbulence
SH.V.C.R2e	e. Surface conditions
SH.V.C.R3	Abnormal operations including:
SH.V.C.R3a	a. Rejected takeoff
SH.V.C.R3b	b. Powerplant failure in takeoff/climb phase of flight

SH.V.C.R4	Collision hazards.
SH.V.C.R5	Low rotor rpm, as applicable.
SH.V.C.R6	Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills:	The applicant exhibits the skill to:
SH.V.C.S1	Complete the appropriate checklist(s).
SH.V.C.S2	Make radio calls as appropriate.
SH.V.C.S3	Use control inputs to initiate lift-off from the takeoff position using a forward climb attitude to fly the departure profile.
SH.V.C.S4	Maintain powerplant and rotor rpm within normal limits.
SH.V.C.S5	Use required takeoff power, or power as specified by the evaluator.
SH.V.C.S6	After clearing all obstacles, transition to normal climb attitude, airspeed, ±5 knots, and power setting.
SH.V.C.S7	Maintain directional control, ground track, and proper wind-drift correction throughout the maneuver.

Task D. Steep Approach

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with steep approach.

Knowledge:	The applicant demonstrates understanding of:
SH.V.D.K1	A stabilized steep approach.
SH.V.D.K2	Approach techniques and applicability.
SH.V.D.K3	Performance data and the height velocity (H/V) diagram, as applicable.
SH.V.D.K4	Effects of atmospheric conditions on approach and landing performance.
SH.V.D.K5	Wind correction techniques.
SH.V.D.K6	Aircraft performance and limitations.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.V.D.R1	Selection of approach path and landing based on aircraft performance and limitations, and wind.
SH.V.D.R2	Effects of:
SH.V.D.R2a	a. Wind Direction
SH.V.D.R2b	b. Windshear
SH.V.D.R2c	c. Turbulence, including wake turbulence
SH.V.D.R3	Planning for:
SH.V.D.R3a	a. Rejected landing and go-around

SH.V.D.R3b	b. Powerplant failure during the approach
SH.V.D.R4	Collision hazards.
SH.V.D.R5	Vortex ring state (VRS).
SH.V.D.R6	Landing surface.
SH.V.D.R7	Aircraft limitations.
SH.V.D.R8	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.V.D.R9	Loss of tail rotor effectiveness (LTE), as applicable.
SH.V.D.R10	Degraded Visual Environment (DVE) and flat light conditions.

Skills:	The applicant exhibits the skill to:
SH.V.D.S1	Complete the appropriate checklist(s).
SH.V.D.S2	Make radio calls as appropriate.
SH.V.D.S3	Consider the wind direction and conditions, landing surface, and obstacles.
SH.V.D.S4	Select a suitable termination point.
SH.V.D.S5	Establish and maintain a steep approach angle, (15° maximum) and proper rate of closure.
SH.V.D.S6	Maintain proper ground track with crosswind correction, if necessary.
SH.V.D.S7	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.V.D.S8	Arrive at the termination point, on the surface or at a stabilized hover, ±4 feet.
SH.V.D.S9	Use runway incursion avoidance procedures, if applicable.

Task E. Go-Around

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with go-around with emphasis on factors that contribute to landing conditions that may require a go-around.

Knowledge:	The applicant demonstrates understanding of:
SH.V.E.K1	Situations and considerations on approach that could require a go-around.
SH.V.E.K2	Effects of atmospheric conditions on a go-around.
SH.V.E.K3	Go-around procedures and the importance of a timely decision.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.V.E.R1	Recognition of the need for a go-around.
SH.V.E.R2	Application of power and flight control inputs.
SH.V.E.R3	Collision hazards.
SH.V.E.R4	Distractions, task prioritization, loss of situational awareness, or disorientation.

SH.V.E.R5	Runway incursion.

Skills:	The applicant exhibits the skill to:
SH.V.E.S1	Make a timely decision to discontinue the approach or at the direction of the evaluator.
SH.V.E.S2	Maintain powerplant and rotor rpm within normal limits while applying proper control input to stop descent and initiate climb.
SH.V.E.S3	Transition to a positive rate of climb and appropriate airspeed of ±10 knots.
SH.V.E.S4	Maintain directional control, ground track, and proper wind-drift correction throughout the maneuver.
SH.V.E.S5	Notify/coordinate with evaluator instructions as required.
SH.V.E.S6	Complete the appropriate checklist(s).
SH.V.E.S7	Use single-pilot resource management (SRM) or crew resource management (CRM), as appropriate.
SH.V.E.S8	Use runway incursion avoidance procedures, if applicable.

Task F. Confined Area Operations

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with confined area operations.

Knowledge:	The applicant demonstrates understanding of:
SH.V.F.K1	Effects of wind, weight, temperature, and density altitude.
SH.V.F.K2	Situations when a confined area approach and landing is recommended and factors related to landing performance including H/V diagram information, as applicable.
SH.V.F.K3	High and low reconnaissance, including takeoff and departure planning.
SH.V.F.K4	Power requirements versus power available for the departure or arrival profile(s).

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.V.F.R1	Selection of approach path, termination point and departure path based on aircraft performance and limitations, wind, and availability of alternate sites.
SH.V.F.R2	Effects of:
SH.V.F.R2a	a. Wind Direction
SH.V.F.R2b	b. Windshear
SH.V.F.R2c	c. Turbulence
SH.V.F.R3	H/V diagram information, as applicable.
SH.V.F.R4	Go-around.
SH.V.F.R5	Forced landing during the maneuver.
SH.V.F.R6	Landing surface.

SH.V.F.R7	Dynamic rollover.
SH.V.F.R8	Ground resonance, as applicable.
SH.V.F.R9	Low rotor rpm, as applicable.
SH.V.F.R10	Loss of tail rotor effectiveness (LTE), as applicable.
SH.V.F.R11	Collision hazards.
SH.V.F.R12	Vortex ring state (VRS).
SH.V.F.R13	Aircraft limitations.
SH.V.F.R14	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.V.F.R15	Power requirements versus power available for the departure or arrival profile(s).

Skills:	The applicant exhibits the skill to:
SH.V.F.S1	Complete the appropriate checklist(s).
SH.V.F.S2	Make radio calls as appropriate.
SH.V.F.S3	Confirm power available meets or exceeds the power required for the selected arrival or departure profile(s).
SH.V.F.S4	Determine wind direction with or without visible wind direction indicators.
SH.V.F.S5	Accomplish a proper high and low reconnaissance of the confined landing area.
SH.V.F.S6	Select a suitable approach path, termination point, and departure path.
SH.V.F.S7	Track the selected approach path at an acceptable approach angle and rate of closure to the termination point.
SH.V.F.S8	Continually evaluate the suitability of the confined landing area and termination point.
SH.V.F.S9	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.V.F.S10	Accomplish a proper ground reconnaissance.
SH.V.F.S11	Terminate in a hover or on the surface, as appropriate.
SH.V.F.S12	Select a suitable takeoff point, considers factors affecting takeoff and climb performance under various conditions.
SH.V.F.S13	Use single-pilot resource management (SRM) or crew resource management (CRM), as appropriate.

Task G. Pinnacle Operations

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with pinnacle operations.

Knowledge:	The applicant demonstrates understanding of:
SH.V.G.K1	Elements of pinnacle/platform operations.
SH.V.G.K2	Effects of wind, weight, temperature, and density altitude.

SH.V.G.K3	Suitable takeoff point and departure flight path during climb.
SH.V.G.K4	Situations when a pinnacle/platform approach, landing, and takeoff is recommended and factors related to aircraft performance.
SH.V.G.K5	Elements of a high and low reconnaissance.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.V.G.R1	Selection of approach path, termination point and departure path based on aircraft performance and limitations, and wind.
SH.V.G.R2	Effects of:
SH.V.G.R2a	a. Wind Direction
SH.V.G.R2b	b. Windshear
SH.V.G.R2c	c. Turbulence
SH.V.G.R3	H/V diagram information, as applicable.
SH.V.G.R4	Go-around.
SH.V.G.R5	Powerplant failure during approach/landing phase of flight.
SH.V.G.R6	Collision hazards.
SH.V.G.R7	Vortex ring state (VRS).
SH.V.G.R8	Landing surface.
SH.V.G.R9	Low rotor rpm, as applicable.
SH.V.G.R10	Dynamic rollover.
SH.V.G.R11	Ground resonance, as applicable.
SH.V.G.R12	Loss of tail rotor effectiveness (LTE), as applicable.
SH.V.G.R13	Aircraft limitations.
SH.V.G.R14	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.V.G.R15	Main and tail rotor hazards, as applicable, for passengers or persons in the vicinity of the aircraft.
SH.V.G.R16	Forced landing.

Skills: The applicant exhibits the skill to:

SH.V.G.S1	Complete the appropriate checklist(s).
SH.V.G.S2	Confirm power available meets or exceeds the power required for the selected arrival or departure profile(s).
SH.V.G.S3	Make radio calls as appropriate.
SH.V.G.S4	Accomplish high and low reconnaissance.
SH.V.G.S5	Determine wind direction with or without visible wind direction indicators.

SH.V.G.S6	Select a suitable approach path, termination point, and departure path.
SH.V.G.S7	Select an approach path considering wind direction.
SH.V.G.S8	Track the selected approach path at an acceptable approach angle and rate of closure to the termination point.
SH.V.G.S9	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.V.G.S10	Accomplish a proper ground reconnaissance.
SH.V.G.S11	Terminate in a hover or on the surface, as appropriate.
SH.V.G.S12	Select a suitable takeoff point and consider factors affecting takeoff and climb performance under various conditions.

Task H. Shallow Approach and Running/Roll-On Landing

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with shallow approach and running/roll-on landing operation.

Knowledge:	The applicant demonstrates understanding of:
SH.V.H.K1	Elements related to shallow approach and running/roll-on landing, including when to use the maneuver, aircraft limitations, and effect of landing surface texture.
SH.V.H.K2	Effects of wind, weight, temperature, and density altitude.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.V.H.R1	Selection of approach path and landing based on aircraft performance and limitations, and wind.
SH.V.H.R2	Effects of:
SH.V.H.R2a	a. Wind Direction
SH.V.H.R2b	b. Windshear
SH.V.H.R2c	c. Turbulence, including wake turbulence
SH.V.H.R3	Planning for:
SH.V.H.R3a	a. Powerplant failure during approach/landing phase of flight
SH.V.H.R4	Collision hazards.
SH.V.H.R5	Landing surface.
SH.V.H.R6	Dynamic rollover.
SH.V.H.R7	Ground resonance, as applicable.
SH.V.H.R8	Aircraft limitations.
SH.V.H.R9	Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills:	The applicant exhibits the skill to:

SH.V.H.S1	Complete the appropriate checklist(s).
SH.V.H.S2	Make radio calls as appropriate.
SH.V.H.S3	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.V.H.S4	Establish and maintain the recommended approach angle and proper rate of closure.
SH.V.H.S5	Determine wind direction and maintain ground track with crosswind correction.
SH.V.H.S6	Maintain effective translational lift during surface contact with landing gear parallel to the ground track.
SH.V.H.S7	Make smooth, timely, and correct control inputs after surface contact to maintain directional control.
SH.V.H.S8	Use runway incursion avoidance procedures, if applicable.

Task I. Rolling Takeoff (Wheel-Type Landing Gear)

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with rolling takeoff with wheel-type landing gear.

Note: *If a crosswind condition does not exist, the applicant's knowledge of crosswind elements must be evaluated through oral testing.*

Knowledge:	The applicant demonstrates understanding of:
SH.V.I.K1	Elements of a rolling takeoff.
SH.V.I.K2	Effects of wind, weight, temperature, and density altitude.
SH.V.I.K3	Situations when a rolling takeoff is recommended and factors related to takeoff and climb performance.
SH.V.I.K4	Translational lift.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.V.I.R1	Selection of takeoff path based on helicopter-simplified flight controls performance and limitations, available distance, and wind.
SH.V.I.R2	Effects of:
SH.V.I.R2a	a. Wind Direction
SH.V.I.R2b	b. Windshear
SH.V.I.R2c	c. Turbulence, including wake turbulence
SH.V.I.R3	Planning for:
SH.V.I.R3a	a. Height/Velocity (H/V) considerations, as applicable
SH.V.I.R3b	b. Rejected takeoff
SH.V.I.R3c	c. Powerplant failure during takeoff/climb phase of flight
SH.V.I.R4	Collision hazards.
SH.V.I.R5	Takeoff surface.

SH.V.I.R6	Landing gear.
SH.V.I.R7	Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills:	The applicant exhibits the skill to:
SH.V.I.S1	Complete the appropriate checklist(s).
SH.V.I.S2	Make radio calls as appropriate.
SH.V.I.S3	Determine wind direction with or without visible wind direction indicators.
SH.V.I.S4	Verify assigned/correct takeoff path.
SH.V.I.S5	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.V.I.S6	Use control inputs that initiate the takeoff roll.
SH.V.I.S7	Maintain proper ground track with crosswind correction, while accelerating.
SH.V.I.S8	Transition to a normal climb airspeed, ±10 knots, and set appropriate power.
SH.V.I.S9	Maintain proper ground track with crosswind correction after liftoff.
SH.V.I.S10	Use runway incursion avoidance procedures, if applicable.

Area of Operation VI. Performance Maneuvers

Note: *The evaluator must test Task A and one other Task in accordance with the aircraft's operating characteristics.*

Task A. Rapid Deceleration/Quick Stop

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with rapid deceleration/quick stop and conditions that may require a rapid deceleration/quick stop.

Knowledge:	The applicant demonstrates understanding of:
SH.VI.A.K1	Purpose of the maneuver.
SH.VI.A.K2	Effects of atmospheric conditions on a rapid deceleration/quick stop.
SH.VI.A.K3	Wind correction techniques during rapid deceleration/quick stop.
Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.VI.A.R1	Recognition of the need for a rapid deceleration/quick stop.
SH.VI.A.R2	Powerplant and rotor management.
SH.VI.A.R3	Vortex ring state (VRS).
SH.VI.A.R4	Collision hazards.
SH.VI.A.R5	Distractions, task prioritization, loss of situational awareness, or disorientation.
Skills:	The applicant exhibits the skill to:
SH.VI.A.S1	Complete the appropriate checklist(s).
SH.VI.A.S2	Maintain powerplant and main rotor(s) (Nr) speed within normal limits.
SH.VI.A.S3	Coordinate all simplified flight controls, as applicable, throughout the execution of the maneuver to terminate in a hover at an appropriate hover height.
SH.VI.A.S4	Maintain an altitude that permits safe clearance between the tail boom and the surface, as applicable.
SH.VI.A.S5	Maintain heading throughout the maneuver, ±10°.

Task B. Straight-In Autorotation in a Single-Engine Helicopter-Simplified Flight Controls

References: *AC 61-140; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with a straight-in autorotation to a power recovery.

Note: *See Appendix 2: Safety of Flight and Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.*

Knowledge:	The applicant demonstrates understanding of:
SH.VI.B.K1	Effects of wind, weight, temperature, and density altitude.
SH.VI.B.K2	Main rotor (Nr) speed.

SH.VI.B.K3	Energy management.
SH.VI.B.K4	Causes and effects of high descent rates.
SH.VI.B.K5	Effect of varying bank angles, airspeeds, and rotor rpm.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VI.B.R1	Low entry altitudes.
SH.VI.B.R2	Flight control inputs.
SH.VI.B.R3	Turbulence, including wake turbulence.
SH.VI.B.R4	Windshear.
SH.VI.B.R5	Energy management.
SH.VI.B.R6	Main rotor (Nr) speed.
SH.VI.B.R7	Low rotor rpm or rotor stall, as applicable.
SH.VI.B.R8	Main rotor(s) (Nr) overspeed.
SH.VI.B.R9	Excessive rate of descent.
SH.VI.B.R10	Powerplant failure during the maneuver.
SH.VI.B.R11	Collision hazards.
SH.VI.B.R12	Terminating an autorotation.
SH.VI.B.R13	Power recovery and go-around.
SH.VI.B.R14	Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills: The applicant exhibits the skill to:

SH.VI.B.S1	Complete the appropriate checklist(s).
SH.VI.B.S2	Make radio calls as appropriate.
SH.VI.B.S3	Select a suitable landing area.
SH.VI.B.S4	Clear the area.
SH.VI.B.S5	Select an appropriate entry altitude.
SH.VI.B.S6	Initiate the maneuver at the proper point.
SH.VI.B.S7	Establish power-off glide with the helicopter-simplified flight controls trimmed and autorotation airspeed, ±10 knots.
SH.VI.B.S8	Maintain main rotor(s) (Nr) within normal limits.
SH.VI.B.S9	Compensate for wind speed and direction as necessary to avoid undershooting or overshooting the selected landing area.
SH.VI.B.S10	Use proper deceleration and collective pitch application or simplified flight controls that permit safe clearance between the aircraft tail boom and the surface, as applicable.

SH.VI.B.S11 Initiate proper power recovery.

SH.VI.B.S12 Terminate autorotation to a stabilized hover within 200 feet of a designated point.

Task C. Autorotation with Turns in a Single-Engine Helicopter-Simplified Flight Controls

References: *AC 61-140; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with autorotation with turns.

Note: *See Appendix 2: Safety of Flight and Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.*

Knowledge: The applicant demonstrates understanding of:

SH.VI.C.K1 Effects of wind, weight, temperature, and density altitude.

SH.VI.C.K2 Main rotor (Nr) speed.

SH.VI.C.K3 Energy management.

SH.VI.C.K4 Causes and effects of high descent rates.

SH.VI.C.K5 Effect of varying bank angles, airspeeds, and rotor rpm.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VI.C.R1 Low entry altitudes.

SH.VI.C.R2 Flight control inputs.

SH.VI.C.R3 Turbulence, including wake turbulence.

SH.VI.C.R4 Windshear.

SH.VI.C.R5 Energy management.

SH.VI.C.R6 Main rotor (Nr) speed.

SH.VI.C.R7 Low rotor rpm or rotor stall, as applicable.

SH.VI.C.R8 Excessive rate of descent.

SH.VI.C.R9 Powerplant failure during the maneuver.

SH.VI.C.R10 Rolling out of the turn.

SH.VI.C.R11 Collision hazards.

SH.VI.C.R12 Terminating an autorotation.

SH.VI.C.R13 Power recovery and go-around.

SH.VI.C.R14 Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills: The applicant exhibits the skill to:

SH.VI.C.S1 Complete the appropriate checklist(s).

SH.VI.C.S2 Make radio calls as appropriate.

SH.VI.C.S3 Select a suitable landing area.

SH.VI.C.S4 Clear the area.

SH.VI.C.S5 Select an appropriate entry altitude.

SH.VI.C.S6 Initiate the maneuver at the proper point.

SH.VI.C.S7 Establish power-off glide with the helicopter-simplified flight controls trimmed and autorotation airspeed, ±10 knots.

SH.VI.C.S8 Maintain main rotor(s) (Nr) within normal limits.

SH.VI.C.S9 Compensate for wind speed and direction as necessary to avoid undershooting or overshooting the selected landing area.

SH.VI.C.S10 Roll out no lower than 300 feet above ground level (AGL) along the flight path to the selected landing area.

SH.VI.C.S11 Use proper deceleration and collective pitch application or simplified flight controls that permits safe clearance between the aircraft tail boom and the surface, as applicable.

SH.VI.C.S12 Initiate proper power recovery.

SH.VI.C.S13 Terminate autorotation to a stabilized hover, within 200 feet of a designated point.

Area of Operation VII. Navigation

Task A. Pilotage and Dead Reckoning

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; Helicopter Route Charts; VFR Navigation Charts*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with pilotage and dead reckoning.

Knowledge:	The applicant demonstrates understanding of:
SH.VII.A.K1	Pilotage and dead reckoning.
SH.VII.A.K2	Magnetic compass errors.
SH.VII.A.K3	Topography.
SH.VII.A.K4	Selection of appropriate:
SH.VII.A.K4a	a. Route
SH.VII.A.K4b	b. Altitude(s)
SH.VII.A.K4c	c. Checkpoints
SH.VII.A.K5	Plotting a course, including:
SH.VII.A.K5a	a. Determining heading, speed, and course
SH.VII.A.K5b	b. Wind correction angle
SH.VII.A.K5c	c. Estimating time, speed, and distance
SH.VII.A.K5d	d. True airspeed and density altitude
SH.VII.A.K6	Power setting selection.
SH.VII.A.K7	Planned calculations versus actual results and required corrections.

Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.VII.A.R1	Collision hazards.
SH.VII.A.R2	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.VII.A.R3	Unplanned fuel consumption, as applicable.

Skills:	The applicant exhibits the skill to:
SH.VII.A.S1	Prepare and use a flight log.
SH.VII.A.S2	Navigate by pilotage.
SH.VII.A.S3	Navigate by means of pre-computed headings, groundspeeds, elapsed time, and reference to landmarks or checkpoints.
SH.VII.A.S4	Use the magnetic direction indicator in navigation, including turns to headings.
SH.VII.A.S5	Verify position within three nautical miles of the flight-planned route.

SH.VII.A.S6	Correct for and record the differences between preflight fuel, groundspeed, and heading calculations and those determined en route.
SH.VII.A.S7	Arrive at the en route checkpoints within five minutes of the initial or revised estimated time of arrival (ETA) and provide a destination estimate.
SH.VII.A.S8	Maintain the selected altitude, ±200 feet and heading, ±15°.

Task B. Navigation Systems and Radar Services

References: *AC 91-78; AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with navigation systems and radar services.

Note: *The evaluator should reference the manufacturer's equipment supplement(s) as necessary for appropriate limitations, procedures, etc.*

Knowledge: The applicant demonstrates understanding of:

SH.VII.B.K1	Ground-based navigation (identification, orientation, course determination, equipment, tests, regulations, interference, appropriate use of navigation data, and signal integrity).
SH.VII.B.K2	Satellite-based navigation (e.g., equipment, regulations, authorized use of databases, and Receiver Autonomous Integrity Monitoring (RAIM)).
SH.VII.B.K3	Radar assistance to visual flight rules (VFR) aircraft (e.g., operations, equipment, available services, traffic advisories).
SH.VII.B.K4	Transponder (Mode(s) A, C, and S) and Automatic Dependent Surveillance-Broadcast (ADS-B).

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VII.B.R1	Management of automated navigation and autoflight systems.
SH.VII.B.R2	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.VII.B.R3	Limitations of the navigation system in use.
SH.VII.B.R4	Loss of a navigation signal.
SH.VII.B.R5	Use of an electronic flight bag (EFB), if used.

Skills: The applicant exhibits the skill to:

SH.VII.B.S1	Use an airborne electronic navigation system.
SH.VII.B.S2	Determine the aircraft's position using the navigation system.
SH.VII.B.S3	Intercept and track a given course, radial, or bearing.
SH.VII.B.S4	Recognize and describe the indication of station or waypoint passage.
SH.VII.B.S5	Recognize loss of navigational signal and take appropriate action.
SH.VII.B.S6	Use proper communication procedures when utilizing radar services, as applicable.
SH.VII.B.S7	Maintain the selected altitude, ±200 feet and headings, ±15°.

Task C. Diversion

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; VFR Navigation Charts*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with diversion.

Knowledge: The applicant demonstrates understanding of:

SH.VII.C.K1	Selecting an alternate destination.
SH.VII.C.K2	Situations that require deviations from flight plan or air traffic control (ATC) instructions, as applicable.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VII.C.R1	Collision hazards.
SH.VII.C.R2	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.VII.C.R3	Circumstances that would make diversion prudent.
SH.VII.C.R4	Selecting an airport/heliport/helipad, as applicable.
SH.VII.C.R5	Using available resources (e.g., automation, ATC, and flight deck planning aids)..

Skills: The applicant exhibits the skill to:

SH.VII.C.S1	Select a suitable airport/heliport/helipad, as applicable, and route for diversion.
SH.VII.C.S2	Make a reasonable estimate of heading, groundspeed, arrival time, and fuel required to the “divert to” destination.
SH.VII.C.S3	Promptly divert toward the airport/heliport/helipad.
SH.VII.C.S4	Maintain the selected altitude, ±200 feet and headings, ±15°.
SH.VII.C.S5	Update/interpret weather in flight.
SH.VII.C.S6	Use displays of digital weather and aeronautical information, as applicable to maintain situational awareness.

Task D. Lost Procedures

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; VFR Navigation Charts*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with lost procedures and can take appropriate steps to achieve a satisfactory outcome if lost.

Knowledge: The applicant demonstrates understanding of:

SH.VII.D.K1	Methods to determine position.
SH.VII.D.K2	Assistance available if lost (e.g., radar services, communication procedures).
SH.VII.D.K3	Rapidly deteriorating weather or impending fuel exhaustion.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VII.D.R1	Collision hazards.

SH.VII.D.R2	Distractions, task prioritization, loss of situational awareness, or disorientation.
SH.VII.D.R3	Recording times over waypoints.
SH.VII.D.R4	When to seek assistance or declare an emergency in a deteriorating situation.

Skills: The applicant exhibits the skill to:

SH.VII.D.S1	Select an appropriate course of action.
SH.VII.D.S2	Use an appropriate method to determine position.
SH.VII.D.S3	Maintain an appropriate heading and climb as necessary.
SH.VII.D.S4	Identify prominent landmarks.
SH.VII.D.S5	Use navigation systems/facilities or contact an ATC facility for assistance.

Area of Operation VIII. Emergency Operations

Note: *Tasks G through J are tested orally only. Task C must be tested in addition to the other Tasks if the applicant supplies a multiengine helicopter-simplified flight controls. Select all applicable tasks in accordance with the aircraft's operating characteristics.*

Task A. Powerplant Failure in a Hover in a Single-Engine Helicopter-Simplified Flight Controls

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with powerplant failure in-ground effect (IGE) hover

Note: *See Appendix 2: Safety of Flight.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.A.K1	Elements related to powerplant failure in a hover, including energy management concepts.
SH.VIII.A.K2	Effects of wind, weight, temperature, and density altitude.
SH.VIII.A.K3	High and low inertia of rotor systems, as applicable.
SH.VIII.A.K4	Aerodynamics associated with powerplant failure in a hover.
SH.VIII.A.K5	Proper orientation, division of attention, and proper planning.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.A.R1	Powerplant failure in a hover.
SH.VIII.A.R2	Flight control inputs.
SH.VIII.A.R3	Aircraft movement.
SH.VIII.A.R4	Dynamic rollover.
SH.VIII.A.R5	Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills: The applicant exhibits the skill to:

SH.VIII.A.S1	Complete the appropriate checklist(s).
SH.VIII.A.S2	Make radio calls as appropriate.
SH.VIII.A.S3	Clear the area.
SH.VIII.A.S4	Select a suitable landing area.
SH.VIII.A.S5	Establish a stationary or forward hover into the wind.
SH.VIII.A.S6	Simulate powerplant failure.
SH.VIII.A.S7	Maintain a heading, ±10°, throughout the maneuver.
SH.VIII.A.S8	Touchdown with minimum sideward movement and no rearward movement.
SH.VIII.A.S9	Use appropriate flight control inputs to cushion the touchdown.
SH.VIII.A.S10	After touchdown, lower collective or neutralize simplified flight controls, as applicable.

Task B. Powerplant Failure at Altitude in a Single-Engine Helicopter-Simplified Flight Controls

References: *AC 61-140; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with a simulated powerplant failure at altitude.

Note: *See Appendix 2: Safety of Flight and Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.B.K1	Elements of a powerplant failure at altitude.
SH.VIII.B.K2	Effects of wind, weight, temperature, and density altitude.
SH.VIII.B.K3	Main rotor(s) (Nr) overspeed.
SH.VIII.B.K4	Energy management.
SH.VIII.B.K5	Causes and effects of high descent rates.
SH.VIII.B.K6	Effect of varying bank angles, airspeeds, and rotor rpm.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.B.R1	Low entry altitudes.
SH.VIII.B.R2	Selection of landing area.
SH.VIII.B.R3	Flight control inputs.
SH.VIII.B.R4	Turbulence, including wake turbulence.
SH.VIII.B.R5	Low rotor rpm or rotor stall, as applicable.
SH.VIII.B.R6	Windshear.
SH.VIII.B.R7	Powerplant failure during the maneuver.
SH.VIII.B.R8	Collision hazards.
SH.VIII.B.R9	Autorotation power-off never-exceed speed (V_{NE}) limitation, as applicable.
SH.VIII.B.R10	Helicopter-Simplified Flight Controls trim, as applicable.
SH.VIII.B.R11	Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills: The applicant exhibits the skill to:

SH.VIII.B.S1	Establish an autorotation.
SH.VIII.B.S2	Establish power-off glide with the helicopter-simplified flight controls trimmed and autorotation airspeed, ±10 knots .
SH.VIII.B.S3	Maintain main rotor(s) (Nr) within normal limits.
SH.VIII.B.S4	Select a suitable landing area considering altitude, wind, terrain, and obstructions.
SH.VIII.B.S5	Compensate for wind speed and direction as necessary to avoid undershooting or overshooting the selected landing area.

SH.VIII.B.S6 Make radio calls as appropriate.

SH.VIII.B.S7 Terminate approach with a power recovery at a safe altitude as directed by the evaluator.

Task C. Approach and Landing with an Engine Inoperative (Simulated) (Multiengine Helicopter-Simplified Flight Controls Only)

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with approach and landing with an engine inoperative (simulated).

Note: *See Appendix 2: Safety of Flight and Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.C.K1 Elements of approach and landing with an engine inoperative.

SH.VIII.C.K2 Effects of atmospheric conditions on emergency approach and landing.

SH.VIII.C.K3 Stabilized approach.

SH.VIII.C.K4 Approach and landing profiles and aircraft configuration.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.C.R1 Consideration of altitude, wind, terrain, obstructions, and available landing area.

SH.VIII.C.R2 Planning and following a flightpath to the selected landing area.

SH.VIII.C.R3 Collision hazards.

SH.VIII.C.R4 Distractions, task prioritization, loss of situational awareness, or disorientation.

Skills: The applicant exhibits the skill to:

SH.VIII.C.S1 Maintain the operating powerplant within limits.

SH.VIII.C.S2 Maintain, prior to beginning the final approach segment, the recommended flight profile with altitude ±200 feet, airspeed, ±20 knots, heading ±10°, and maintains track.

SH.VIII.C.S3 Make radio calls as appropriate.

SH.VIII.C.S4 Plan and follow a flightpath to the selected landing area considering altitude, wind, terrain, and obstructions.

SH.VIII.C.S5 Complete the appropriate checklist(s).

SH.VIII.C.S6 Maintain directional control and appropriate crosswind correction throughout the approach and landing.

SH.VIII.C.S7 Use single-pilot resource management (SRM) or crew resource management (CRM), as appropriate.

Task D. Systems and Equipment Malfunctions

References: *AIM; FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; VFR Navigation Charts*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with

causes, indications, and pilot actions for system malfunctions.

Knowledge: The applicant demonstrates understanding of:

SH.VIII.D.K1 Causes of partial or complete power loss related to the specific type of powerplant(s).

SH.VIII.D.K2 System and equipment malfunctions specific to the helicopter-simplified flight controls, including:

SH.VIII.D.K2a a. Electrical malfunction

SH.VIII.D.K2b b. Flight instrument malfunctions

SH.VIII.D.K2c c. Pitot-static system malfunction

SH.VIII.D.K2d d. Electronic flight deck display malfunction

SH.VIII.D.K2e e. Landing gear malfunctions, as applicable

SH.VIII.D.K2f f. Inoperative simplified flight controls/trim, as applicable

SH.VIII.D.K2g g. Hydraulic failure, as applicable

SH.VIII.D.K3 Various frequency vibrations and the possible components that may be affected.

SH.VIII.D.K4 Causes and remedies for smoke or fire onboard the aircraft.

SH.VIII.D.K5 Any other system malfunction specific to the helicopter-simplified flight controls flown.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.D.R1 Startle response.

SH.VIII.D.R2 Checklist usage for a system or equipment malfunction, as applicable.

SH.VIII.D.R3 Distractions, task prioritization, loss of situational awareness, or disorientation.

SH.VIII.D.R4 Undesired aircraft state.

Skills: The applicant exhibits the skill to:

SH.VIII.D.S1 Determine appropriate action for simulated emergencies specified by the evaluator, from at least three of the elements or sub-elements listed in K1 through K5.

SH.VIII.D.S2 Complete the appropriate checklist(s).

Task E. Vortex Ring State (VRS)

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with main rotor Vortex Ring State (VRS).

Note: *See Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.E.K1 Elements of vortex ring state.

SH.VIII.E.K2 Effects of wind, weight, temperature, and density altitude.

SH.VIII.E.K3 Requirements for the formation of VRS.

SH.VIII.E.K4 Aerodynamics and indications of VRS.

SH.VIII.E.K5 Flight scenarios under which VRS can occur.

SH.VIII.E.K6 Effective recovery techniques.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.E.R1 Pilot recognition and response to VRS.

SH.VIII.E.R2 Entering the maneuver at a lower altitude than planned.

SH.VIII.E.R3 Application of power or exceeding powerplant limitations.

SH.VIII.E.R4 Collision hazards.

SH.VIII.E.R5 Distractions, task prioritization, loss of situational awareness, or disorientation.

SH.VIII.E.R6 Loss of tail rotor effectiveness (LTE), as applicable.

Skills: The applicant exhibits the skill to:

SH.VIII.E.S1 Complete the appropriate checklist(s).

SH.VIII.E.S2 Clear the area.

SH.VIII.E.S3 Select an altitude that allows recovery to be completed no lower than 1,000 feet AGL or as recommended by the manufacturer, whichever is higher.

SH.VIII.E.S4 Establish conditions leading to VRS entry.

SH.VIII.E.S5 Promptly recognize, announce, and recover at the first indication of VRS.

SH.VIII.E.S6 Use single-pilot resource management (SRM) or crew resource management (CRM), as appropriate.

Task F. Low Rotor Revolutions Per Minute (RPM) Recognition and Recovery

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with low rotor rpm recognition and recovery.

Note: *See Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.F.K1 Elements related to low rotor rpm recovery energy management, including the combination of conditions that may lead to this situation, as applicable.

SH.VIII.F.K2 Effects of wind, weight, temperature, and density altitude.

SH.VIII.F.K3 Aerodynamics that affect low rotor rpm conditions.

SH.VIII.F.K4 Powerplant performance.

SH.VIII.F.K5 Main rotor(s) (Nr) limitations.

SH.VIII.F.K6 Difference between low rotor rpm and blade stall.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.F.R1 Powerplant limitations.

SH.VIII.F.R2 Powerplant governor or simplified flight controls operations, as applicable.

SH.VIII.F.R3 Collision hazards.

SH.VIII.F.R4 Distractions, task prioritization, loss of situational awareness, or disorientation.

SH.VIII.F.R5 Low inertia rotor systems, as applicable.

Skills: The applicant exhibits the skill to:

SH.VIII.F.S1 Complete the appropriate checklist(s).

SH.VIII.F.S2 Clear the area.

SH.VIII.F.S3 Detect the development of low rotor rpm and initiate prompt corrective action, as applicable.

SH.VIII.F.S4 Execute the recovery procedure to return rotor rpm to normal limits.

Task G. Antitorque System Failure

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge and risk management associated with an antitorque system failure.

Note: *Evaluator assesses this Task orally only.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.G.K1 Elements related to antitorque system failure by describing:

SH.VIII.G.K1a a. Indications of an antitorque system failure(s), as applicable

SH.VIII.G.K1b b. Differences between complete loss of antitorque and mechanical flight control failures, as applicable

SH.VIII.G.K1c c. RFM procedures for antitorque system(s) failure, as applicable

SH.VIII.G.K2 Wind conditions that favor a landing with an antitorque failure.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.G.R1 Preflight inspection of the antitorque system, as applicable.

SH.VIII.G.R2 Antitorque failure for the aircraft supplied for the practical test, as applicable.

SH.VIII.G.R3 Use of antitorque failure procedures, as applicable.

Skills: The applicant exhibits the skill to:

SH.VIII.G.S1 [Intentionally left blank].

Task H. Dynamic Rollover

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM; SAFO 16016*

Objective: To determine the applicant exhibits satisfactory knowledge and risk management associated with dynamic rollover.

Note: *Evaluator assesses this Task orally only.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.H.K1 Elements related to dynamic rollover.

SH.VIII.H.K2 Interactions between thrust, crosswind, slope, lateral CG, aircraft weight, and flight controls that contribute to dynamic rollover.

SH.VIII.H.K3 Preventive flight technique and recovery during flight operations, including slope operations.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.H.R1 Surface conditions conducive to dynamic rollover.

SH.VIII.H.R2 Landing gear proximity to obstructions on the ground during low altitude hover.

SH.VIII.H.R3 Flight control inputs during takeoff or landing.

SH.VIII.H.R4 Sideward hover.

SH.VIII.H.R5 Aircraft slope limitations.

SH.VIII.H.R6 Critical rollover angle and rolling moment.

SH.VIII.H.R7 Translating tendency, as applicable.

Skills: The applicant exhibits the skill to:

SH.VIII.H.S1 [Intentionally left blank].

Task I. Ground Resonance

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge and risk management associated with ground resonance.

Note: *Evaluator assesses this Task orally only.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.I.K1 Exhibits knowledge of the elements related to ground resonance by describing:

SH.VIII.I.K1a a. Conditions that contribute to ground resonance

SH.VIII.I.K1b b. Preventive flight technique during takeoffs and landings

SH.VIII.I.K1c c. Landing surface

SH.VIII.I.K2 Inspection of items that may contribute to ground resonance.

SH.VIII.I.K3 Corrective actions during low and normal rotor rpm speeds.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.I.R1 Factors that may contribute to the onset of ground resonance.

SH.VIII.I.R2 Recognition of the onset of ground resonance.

SH.VIII.I.R3 Recovery procedure selection.

Skills: The applicant exhibits the skill to:

SH.VIII.I.S1 [Intentionally left blank].

Task J. Low Gravity (G) Recognition and Recovery

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge and risk management associated with low G conditions.

Note: *Evaluator assesses this Task orally only.*

Knowledge: The applicant demonstrates understanding of:

SH.VIII.J.K1 Exhibits knowledge of the elements related to low G conditions by describing::

SH.VIII.J.K1a a. Aerodynamic factors related to low G conditions

SH.VIII.J.K1b b. Situations that contribute to low G conditions

SH.VIII.J.K1c c. Avoidance, recognition, and appropriate recovery procedures

SH.VIII.J.K2 Effects of low G conditions on various rotor systems.

SH.VIII.J.K3 Pilot responses that lead to mast bumping in a low G condition, as applicable.

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.J.R1 Control inputs that cause low G conditions, as applicable.

SH.VIII.J.R2 Turbulence/gusty wind conditions.

SH.VIII.J.R3 Control inputs that cause mast bumping, as applicable.

Skills: The applicant exhibits the skill to:

SH.VIII.J.S1 [Intentionally left blank].

Task K. Emergency Equipment and Survival Gear

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with emergency equipment, and survival gear appropriate to the helicopter-simplified flight controls and environment encountered during flight.

Knowledge: The applicant demonstrates understanding of:

SH.VIII.K.K1 Emergency Locator Transmitter (ELT) operations, limitations, and testing requirements, as applicable.

SH.VIII.K.K2 Fire extinguisher operations and limitations.

SH.VIII.K.K3 Emergency equipment and survival gear needed for:

SH.VIII.K.K3a a. Climate extremes (hot/cold)

SH.VIII.K.K3b b. Mountainous terrain

SH.VIII.K.K3c c. Overwater operations

Risk Management: The applicant is able to identify, assess, and mitigate risk associated with:

SH.VIII.K.R1 Survival gear (water, clothing, shelter) for 48 to 72 hours.

Skills: The applicant exhibits the skill to:

SH.VIII.K.S1 Identify appropriate equipment and personal gear.

SH.VIII.K.S2 Brief passengers on proper use of on-board emergency equipment and survival gear, as applicable.

Area of Operation IX. Postflight Procedures

Task A. After Landing, Parking, and Securing

References: *FAA-H-8083-2, FAA-H-8083-21, FAA-H-8083-25; POH/RFM*

Objective: To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with after landing, parking, and securing procedures.

Knowledge:	The applicant demonstrates understanding of:
SH.IX.A.K1	Helicopter-simplified flight controls shutdown, securing, and postflight inspection.
SH.IX.A.K2	Documenting in-flight/postflight discrepancies.
Risk Management:	The applicant is able to identify, assess, and mitigate risk associated with:
SH.IX.A.R1	Activities and distractions.
SH.IX.A.R2	Parking the helicopter-simplified flight controls in a congested area.
SH.IX.A.R3	Airport specific security procedures.
SH.IX.A.R4	Disembark passengers safely and monitor passenger movement while on the ramp, as applicable.
Skills:	The applicant exhibits the skill to:
SH.IX.A.S1	Minimize the hazardous effects of rotor downwash during hovering.
SH.IX.A.S2	Park in an appropriate area, considering the safety of nearby persons and property.
SH.IX.A.S3	Complete the appropriate checklist(s).
SH.IX.A.S4	Conduct a postflight inspection and document discrepancies and servicing requirements, if any.
SH.IX.A.S5	Secure the helicopter-simplified flight controls.

Appendix 1: Practical Test Roles, Responsibilities, and Outcomes

Eligibility Requirements for a Sport Pilot Certificate

The prerequisite requirements and general eligibility for a practical test and the specific requirements for the issuance of a Sport Pilot Certificate for Helicopter-Simplified Flight Controls privilege can be found in 14 CFR part 61, section 61.39(a) and Subpart J.

In accordance with 14 CFR part 61, section 61.39, the applicant must pass the airman knowledge test before taking the practical test, if applicable to the certificate or privilege sought.

An applicant seeking to add a helicopter-simplified flight controls privilege to an existing sport certificate with a different category and class must pass a practical test. However, a person who holds a pilot certificate with a rotorcraft helicopter rating, does not need to take a practical test, however, the applicant must be qualified in accordance with 14 CFR part 61, section 61.31(l).

Sport Pilot for Helicopter-Simplified Flight Controls Airman Knowledge Test Table

For a sport pilot certificate for helicopter-simplified flight controls, applicants must pass the knowledge test listed in the table below as a prerequisite for the practical test.

Test Code	Test Name	Number of Questions	Age	Allotted Time	Passing Score
SPH	Helicopter Simplified Flight Controls	40	15	2	70

Use of the ACS During a Practical Test

The practical test is conducted in accordance with the ACS and FAA regulations that are current as of the date of the test.

The Areas of Operation in this ACS align with the Areas of Operation found in 14 CFR part 61, section 61.311. Each Area of Operation includes Tasks appropriate to that Area of Operation. Each Task contains an Objective stating what the applicant must know, consider, and/or do. The ACS then lists the aeronautical knowledge, risk management, and skill elements relevant to the specific Task, along with the conditions and standards for acceptable performance. The ACS uses Notes to emphasize special considerations.

During the ground and flight portion of the practical test, the FAA expects evaluators to assess the applicant's mastery of the topic in accordance with the level of learning most appropriate for the specified Task. The oral questioning will continue throughout the entire practical test. For some topics, the evaluator will ask the applicant to describe or explain. For other items, the evaluator will assess the applicant's understanding by providing a scenario that requires the applicant to appropriately apply and/or correlate knowledge, experience, and information to the circumstances of the given scenario. The flight portion of the practical test requires the applicant to demonstrate knowledge, risk management, flight proficiency, and operational skill in accordance with the ACS.

The elements within each Task in this ACS are coded according to a scheme that includes four components. For example, SH.II.A.K2:

SH = Applicable ACS
II = Area of Operation (Preflight Procedures)
A = Task (Preflight Assessment)
K2 = Knowledge Element (Determining that the helicopter-simplified flight controls to be used is in an airworthy condition.)

There is no requirement for an evaluator to test every knowledge and risk management element in a Task; rather the evaluator has discretion to sample as needed to ensure the applicant’s mastery of that Task. The required minimum elements to be tested from each applicable Task include:

- any elements in which the applicant was shown to be deficient on the knowledge test, as applicable;
- at least one knowledge element;

- at least one risk management element; and
- all skill elements unless otherwise noted.

The Airman Knowledge Test Report (AKTR) lists ACS codes that correlate to a specific Task element for a given Area of Operation for any incorrect responses on the knowledge test.

Knowledge and risk management elements are primarily evaluated during the knowledge testing phase of the airman certification process. The evaluator administering the practical test has the discretion to combine Tasks/elements as appropriate to testing scenarios.

Unless otherwise noted in the Task, the evaluator must test each item in the skills section by observing the applicant perform each one. As safety of flight conditions permit, the evaluator should use questions during flight to test knowledge and risk management elements not evident in the demonstrated skills. To the greatest extent practicable, evaluators should test the applicant's ability to apply and correlate information and use rote questions only when they are appropriate for the material being tested.

If the Task includes a knowledge or risk element with sub-elements, the evaluator may choose the primary element and select at least one sub-element to satisfy the requirement. Selection of the sub-element satisfies the requirement for one element unless otherwise noted.

For example, an evaluator who chooses SH.II.A.K3 may select a sub-element such as SH.II.A.K3a to satisfy the requirement to select one knowledge element.

The References for each Task indicate the source material for Task elements. For example, in the Task element "Acceptable weather products and resources required for preflight planning, current and forecast weather for departure, en route, and arrival phases of flight such as:" (SH.I.C.K2), the applicant should be prepared for questions on any weather product presented in the references for that Task.

The FAA encourages applicants and instructors to use the ACS when preparing for the airman knowledge tests and practical tests. Evaluators must conduct the practical test in accordance with the current ACS and FAA regulations pursuant to 14 CFR part 61, section 61.307. If an applicant is entitled to credit for Areas of Operation previously passed as indicated on a Notice of Disapproval of Application or Letter of Discontinuance, evaluators shall use the ACS currently in effect on the date of the test.

The ground portion of the practical test allows the evaluator to determine whether the applicant is sufficiently prepared to advance to the flight portion of the practical test. The applicant must pass the ground portion of the practical test before beginning the flight portion. The oral questioning will continue throughout the entire practical test.

Instructor Responsibilities

The instructor trains and qualifies the applicant to meet the established standards for knowledge, risk management, and skill elements in all Tasks appropriate to the certificate and privilege sought. The instructor should use this ACS and its references when preparing the applicant to take the practical test and when retraining the applicant to proficiency in any subject(s) missed on the knowledge test.

Evaluator Responsibilities

An evaluator is:

- Aviation Safety Inspector (ASI);
- Pilot examiner (other than administrative pilot examiners);
- Training center evaluator (TCE); or
- Chief instructor, assistant chief instructor, or check instructor of pilot school holding examining authority.

The evaluator who conducts the practical test determines whether the applicant meets the established standards of aeronautical knowledge, risk management, and skills for the Tasks in the appropriate ACS. This responsibility also includes verifying the experience requirements specified for a certificate or privilege.

The evaluator must determine that the applicant meets FAA Aviation English Language Standard (AELS). An applicant for an FAA certificate or privilege must be able to communicate in English in a discernible and understandable manner with air traffic control (ATC), pilots, and others involved in preparing an aircraft for flight and operating an aircraft in flight. This communication may or may not involve radio communications. An applicant for an FAA certificate issued in accordance with

14 CFR parts 61, 63, 65, or 107 who cannot hear or speak due to a medical deficiency may be eligible for an FAA certificate with specific operational limitations. For additional information, reference AC 60-28, FAA English Language Standard for an FAA Certificate issued under 14 CFR Parts 61, 63, 65, and 107, as amended.

If the applicant's ability to meet the FAA AELS comes into question before starting the practical test, the evaluator will not begin the practical test. An evaluator who is not an ASI will check the box, Referred to FSO for Aviation English Language Standard Determination, located on the bottom of page 2 of the applicant's FAA Form 8710-1, Airman Certificate and/or Rating Application, or FAA Form 8710-11, Airman Certificate and/or Rating Application - Sport Pilot, as applicable. The evaluator will refer the applicant to the appropriate Flight Standards Office (FSO).

If the applicant's ability to meet the FAA AELS comes into question after the practical test begins, an evaluator who is not an ASI will discontinue the practical test and check the box, Referred to FSO for Aviation English Language Standard Determination, on the application. The evaluator will also issue FAA Form 8060-5, Notice of Disapproval of Application, with the comment "Does Not Demonstrate FAA AELS" in addition to any unsatisfactory Task(s). The evaluator will refer the applicant to the appropriate FSO. ASIs conducting the practical test may assess an applicant's English language proficiency in accordance with FAA Order 8900.1.

In either case, the evaluator must complete and submit the application file through normal application procedures and notify the appropriate FSO of the referral.

The evaluator must develop a plan of action (POA) and administer each practical test in English that includes all required Areas of Operation and Tasks. The POA must include scenario(s) that evaluate as many of the required Areas of Operation and Tasks as possible. As the scenario(s) unfolds during the test, the evaluator will introduce problems and emergencies that test the applicant's ability. The evaluator has the discretion to modify the POA in order to accommodate unexpected situations as they arise. For example, the evaluator may elect to suspend and later resume a scenario in order to assess certain Tasks.

Possible Outcomes of the Test

A practical test has three possible outcomes: (1) Temporary Airman Certificate (satisfactory), (2) Notice of Disapproval of Application (unsatisfactory), or (3) Letter of Discontinuance.

If the evaluator determines that a Task is incomplete, or the outcome is uncertain, the evaluator must require the applicant to repeat that Task, or portions of that Task. This provision does not mean that instruction, practice, or the repetition of an unsatisfactory Task is permitted during the practical test.

Satisfactory Performance

Refer to 14 CFR part 61, section 61.43, for satisfactory performance requirements.

Satisfactory performance will result in the issuance of a temporary certificate.

Unsatisfactory Performance

If, in the judgment of the evaluator, the applicant does not meet the standards for any Task, the applicant fails the Task and associated Area of Operation and the evaluator issues a Notice of Disapproval of Application. The evaluator lists the Area(s) of Operation in which the applicant did not meet the standard, any Area(s) of Operation not tested, and the number of practical test failures. The evaluator should also list the Tasks failed or Tasks not tested within any unsatisfactory or partially completed Area(s) of Operation. 14 CFR part 61, section 61.43(c)-(f) provides additional unsatisfactory performance requirements and parameters.

Typical areas of unsatisfactory performance and grounds for disqualification include:

- Any action or lack of action by the applicant that requires corrective intervention by the evaluator to maintain safe flight.
- Failure to use proper and effective visual scanning techniques to clear the area before and while performing maneuvers.
- Consistently exceeding tolerances stated in the skill elements of the Task.
- Failure to take prompt corrective action when tolerances are exceeded.
- Failure to exercise risk management.

The evaluator or the applicant may end the test if the applicant fails a Task. The evaluator may continue the test only with the consent of the applicant. The applicant receives credit only for those Areas of Operation and the associated Tasks performed satisfactorily.

Letter of Discontinuance

Refer to 14 CFR part 61, section 61.43(e)(2) for conditions to issue a letter of discontinuance.

If discontinuing a practical test for reasons other than unsatisfactory performance (e.g., equipment failure, weather, illness), the evaluator must return all test paperwork to the applicant. The evaluator must prepare, sign, and issue a Letter of Discontinuance that lists those Areas of Operation the applicant successfully completed and the time period remaining to complete the test to receive credit for previously completed Areas of Operation. The evaluator should advise the applicant to present the Letter of Discontinuance to the evaluator when the practical test resumes in order to receive credit for the items successfully completed. The Letter of Discontinuance becomes part of the applicant's certification file.

Time Limit and Credit after a Discontinued Practical Test

Refer to 14 CFR part 61, sections 61.39(f) and 61.43(f) after issuance of a Letter of Discontinuance or Notice of Disapproval of Application.

Additional Privilege Task Table

For an applicant who holds a Pilot Certificate and seeks an additional Sport Pilot for Helicopter-Simplified Flight Controls Privilege, the evaluator must test that applicant in the Areas of Operation and Tasks listed in the Additional Privilege Task Table. The evaluator may test the applicant’s competence in the remaining Areas of Operation and Tasks.

If the applicant holds two or more category or class ratings/privileges, and the privileges table indicates different Task requirements, the least restrictive entry applies. For example, if an asterisk (*), and “None” are indicated for one Area of Operation, the “None” entry applies. If the table indicates “B” and “B, C” the “B” entry applies.

Addition of a Sport Pilot for Helicopter-Simplified Flight Controls Privilege to an Existing Pilot Certificate

The table below indicates the required Tasks for each Area of Operation tested in accordance with this ACS.

Legend	
ASEL	Airplane – Single-Engine Land
ASES	Airplane – Single-Engine Sea
AMEL	Airplane – Multiengine Land
AMES	Airplane – Multiengine Sea
RG	Rotorcraft – Gyroplane
PL	Powered-Lift

	Rating(s) Held								
Area of Operation	**ASEL**	**ASES**	**AMEL**	**AMES**	**RG**	**Glider**	**Balloon**	**Airship**	**PL**
I	E,F,G	E,F,G	E,F,G	E,F,G	E,F,G	D,E,F,G	D,E,F,G	E,F,G	E,F,G
II	All	All	All	All	All	All	All	All	All
III	A,C	A,C	A,C	A,C	A,C	All	All	A,C	A,C
IV	*	*	*	*	*	*	*	*	*
V	*	*	*	*	*	*	*	*	*
VI	*	*	*	*	*	*	*	*	*
VII	None	None	None	None	None	None	None	None	None
VIII	*	*	*	*	*	*	*	*	*
IX	All	All	All	All	All	All	All	All	All

Note: *An asterisk directs the evaluator to follow the selection requirements for the AOO and Tasks in the body of this ACS.*

Addition of a Sport Pilot Privilege for Helicopter-Simplified Flight Controls to an Existing Sport Pilot Certificate

The table below indicates the required Tasks for each Area of Operation tested in accordance with this ACS.

Legend	
ASEL	Airplane – Single-Engine Land
ASES	Airplane – Single-Engine Sea
PPCL	Powered-Parachute – Land
PPCS	Powered-Parachute – Sea
RG	Rotorcraft – Gyroplane
WSCL	Weight-Shift Control – Land
WSCS	Weight-Shift Control – Sea

	Rating(s) Held									
Area of Operation	**ASEL**	**ASES**	**PPCL**	**PPCS**	**RG**	**Glider**	**Balloon**	**Airship**	**WSCL**	**WSCS**
I	E,F,G	E,F,G	E,F,G	E,F,G	E,F,G	D,E,F,G	D,E,F,G	E,F,G	E,F,G	E,F,G
II	All	All	All	All	All	All	All	All	All	All
III	A,C	A,C	A,C	A,C	A,C	All	All	A,C	A,C	A,C
IV	*	*	*	*	*	*	*	*	*	*
V	*	*	*	*	*	*	*	*	*	*
VI	*	*	*	*	*	*	*	*	*	*
VII	None	None	None	None	None	None	None	None	None	None
VIII	*	*	*	*	*	*	*	*	*	*
IX	All	All	All	All	All	All	All	All	All	All

Note: *An asterisk directs the evaluator to follow the selection requirements for the AOO and Tasks in the body of this ACS.*

Appendix 2: Safety of Flight

General

Safety of flight must be the prime consideration at all times. The evaluator, applicant, and crew must be continually alert for other traffic. If performing aspects of a given maneuver, such as emergency procedures, would jeopardize safety, the evaluator will ask the applicant to simulate that portion of the maneuver. The evaluator will assess the applicant's use of visual scanning and collision avoidance procedures throughout the entire test.

Use of Checklists

Throughout the practical test, the applicant is evaluated on the use of an appropriate checklist.

Assessing proper checklist use depends upon the specific Task. In all cases, the evaluator should determine whether the applicant demonstrates CRM, appropriately divides attention, and uses proper visual scanning. In some situations, reading the actual checklist may be impractical or unsafe. In such cases, the evaluator should assess the applicant's performance of published or recommended immediate action "memory" items along with their review of the appropriate checklist once conditions permit.

In a single-pilot aircraft, the applicant should demonstrate the crew resource management (CRM) principles described as single-pilot resource management (SRM). Proper use depends on the specific Task being evaluated. If the use of the checklist while accomplishing elements of an Objective would be either unsafe or impractical in a single-pilot operation, the applicant should review the checklist after accomplishing the elements.

Positive Exchange of Flight Controls

A clear understanding of who has control of the aircraft must exist. Prior to flight, the pilots involved should conduct a briefing that includes reviewing the procedures for exchanging flight controls.

The FAA recommends a positive three-step process for exchanging flight controls between pilots:

- When one pilot seeks to have the other pilot take control of the aircraft, they will say, "You have the flight controls."
- The second pilot acknowledges immediately by saying, "I have the flight controls."
- The first pilot again says, "You have the flight controls," and visually confirms the exchange.

Pilots should follow this procedure during any exchange of flight controls, including any occurrence during the practical test. The FAA also recommends that both pilots use a visual check to verify that the exchange has occurred. Doubt as to who is flying the aircraft should not occur.

Use of Distractions

Numerous studies indicate that many accidents have occurred when the pilot has been distracted during critical phases of flight. The evaluator should incorporate realistic distractions during the flight portion of the practical test to evaluate the pilot's situational awareness and ability to utilize proper control technique while dividing attention both inside and outside the flight deck.

Aeronautical Decision-Making, Risk Management, Crew Resource Management, and Single-Pilot Resource Management

Throughout the practical test, the evaluator must assess the applicant's ability to use sound aeronautical decision-making procedures in order to identify hazards and mitigate risk. The evaluator must accomplish this requirement by reference to the risk management elements of the given Task(s), and by developing scenarios that incorporate and combine Tasks appropriate to assessing the applicant's risk management in making safe aeronautical decisions. For example, the evaluator may develop a scenario that incorporates weather decisions and performance planning.

In assessing the applicant's performance, the evaluator should take note of the applicant's use of CRM and, if appropriate, SRM. CRM/SRM is the set of competencies that includes situational awareness, communication skills, teamwork, task allocation, and decision-making within a comprehensive framework of standard operating procedures (SOP). SRM specifically refers to the management of all resources onboard the aircraft, as well as outside resources available to the

single pilot.

If an applicant fails to use aeronautical decision-making (ADM), including SRM/CRM, as applicable in any Task, the evaluator will note that Task as failed. The evaluator will also include the ADM Skill element from the Flight Deck Management Task on the Notice of Disapproval of Application.

Simulated Powerplant Failure Considerations (Single and Multi-Engine Helicopters-Simplified Flight Controls

The evaluator must conduct a pre-flight briefing that includes expectations for testing any simulated powerplant failures, to include:

- Who will initiate the simulated powerplant failure;
- The method used to simulate the powerplant failure; and
- Who will perform the power recovery procedure.
- Simulated powerplant failures and autorotations must be conducted in accordance with the POH/RFM.

During a simulated powerplant failure in any helicopter-simplified flight controls, the potential for a forced landing exists. The evaluator or applicant must ensure the safety of a potential landing site before commencing any simulated powerplant failure. Such areas include, but are not limited to, hard surface runways, taxiways, and designated hard surface landing areas, such as parking lots, grass fields, and grass runways in good condition. The evaluator and applicant must also consider winds, density altitude, temperature, aircraft loading, and type of helicopter-simplified flight controls.

Minimum altitude requirements for specific Tasks are listed in Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations.

Autorotations in a Single-Engine Helicopter – Simplified Flight Controls

Except for the Powerplant Failure in a Hover Task, if at any time during an autorotation the evaluator or the applicant determines the helicopter-simplified flight controls is not in a position to safely continue the autorotation, a power recovery and go-around must be performed. If the reason for discontinuing the autorotation is due to the applicant's lack of judgment or skill, the Task is unsatisfactory.

While an applicant's inability to complete this Task within the tolerances specified in the skill elements is considered unsatisfactory, landing area safety concerns beyond the control of the applicant or evaluator that necessitate a go-around would not be considered unsatisfactory. The applicant and evaluator must not sacrifice the safety of flight and force a landing to complete this Task.

Appendix 3: Aircraft, Equipment, and Operational Requirements & Limitations

Aircraft Requirements & Limitations

If the aircraft has inoperative equipment and can be operated in accordance with 14 CFR part 91, section 91.213, it must be determined if any inoperative instruments or equipment are required to complete the practical test. The inoperative equipment must not interfere with practical test requirements.

Practical tests conducted in a flight simulation training device (FSTD) can only be accomplished as part of an approved curriculum or training program. Any limitations or powerplant failure will be noted and followed as part of that program.

Equipment Requirements & Limitations

The aircraft must meet the requirements as outlined in 14 CFR part 61, section 61.45.

To assist in management of the aircraft during the practical test, the applicant is expected to demonstrate automation management skills by utilizing installed, available, or airborne equipment such as autopilot, avionics and systems displays, and/or a flight management system (FMS). The evaluator is expected to test the applicant's knowledge of the systems that are available or installed and operative during both the ground and flight portions of the practical test. If the applicant has trained using a portable electronic flight bag (EFB) to display charts and data and wishes to use the EFB during the practical test, the applicant is expected to demonstrate appropriate knowledge, risk management, and skill appropriate to its use.

Single-Seat Aircraft Practical Test

Applicants for a Sport Pilot Certificate may elect to take their test in a single-seat aircraft. The FAA established in 14 CFR part 61, section 61.45(f) specific requirements to allow a practical test for a Sport Pilot Certificate only.

With certain limitations, the practical test for a Sport Pilot Certificate with a helicopter-simplified flight controls privilege may be conducted from the ground by an examiner. In accordance with 61.45(f)(1), the examiner must agree to conduct the practical test in a single-seat helicopter-simplified flight controls aircraft and must ensure that the practical test is conducted in accordance with the Sport Pilot Helicopter-Simplified Flight Controls Airman Certification Standards.

The examiner must be in a position to observe the operation of the aircraft while evaluating the proficiency of the applicant from the ground. They should maintain radio contact with the applicant during the practical test.

Sport pilots who successfully complete the practical test in a single-seat helicopter-simplified flight controls aircraft will have the limitation, "No passenger carriage and flight in a single-pilot seat aircraft only" placed on their sport pilot certificate, per 14 CFR part 61.45(f)(3).

Only an examiner is authorized to remove this limitation when the sport pilot takes a complete practical test in a two-seat helicopter-simplified flight controls aircraft.

Upon successful completion of the practical test, the limitation will be removed, and the sport pilot is authorized to act as pilot in command in the specific make and model helicopter-simplified flight controls that they have an endorsement to operate. The limitation can also be removed if the pilot successfully completes a practical test for a rotorcraft category helicopter class for a higher certificate or rating, in a helicopter with a minimum of two places.

Use of Flight Simulation Training Devices (FSTD)

Applicants for a pilot certificate or rating can accomplish all or part of a practical test in an FSTD qualified under 14 CFR part 60, which includes full flight simulators (FSS) or flight training devices (FTD), only when conducted within an FAA-approved training program provided by an operator utilizing a part 119 air carrier or commercial operator certificate or an operator that holds a part 141 or 142 air agency certificate. Each operational rule part identifies additional requirements for the approval and use of FSTDs in an FAA-approved training program. Reference part 61, section 61.64(a)(2).

Credit for Pilot Time in an FSTD

14 CFR part 61 and part 141 specify the minimum experience requirements for each certificate or rating sought. 14 CFR part 61 and the appendices to part 141 specify the maximum amount of FFS or FTD flight training time an applicant can apply toward those experience requirements.

Use of Aviation Training Devices (ATD)

Applicants for a pilot certificate or rating cannot use an ATD to accomplish a practical test, a 14 CFR part 61, section 61.58 proficiency check, or the flight portion of a 14 CFR part 61, section 61.56 flight review. An ATD is defined in 14 CFR part 61, section 61.1.

The FAA's General Aviation and Commercial Division evaluates and approves ATDs as permitted under 14 CFR part 61, section 61.4(c) and FAA Order 8900.1. Each ATD is then issued an FAA letter of authorization (LOA) that is valid for 60 calendar months. The LOA for each ATD lists the pilot time credit allowances and associated limitations.

The Pilot Training and Certification Group public website provides a list of the FAA-approved ATDs and the associated manufacturer.

Credit for Pilot Time in an ATD

14 CFR part 61 and part 141 specify the minimum experience requirements for each certificate or rating sought. 14 CFR part 61 and the appendices to part 141 specify the maximum amount of ATD flight training time an applicant can apply toward those experience requirements. The LOA for each FAA-approved ATD lists the pilot time credit allowances and the associated limitations.

Evaluators must request an applicant to provide a copy of the manufacturer's LOA when using ATD flight training time credit to meet the minimum experience requirements for an airman pilot certificate, rating, or privilege.

Operational Requirements, Limitations, & Task Information

IV. Hovering Maneuvers

Task E. Slope Operations

Demonstration of parallel slope operations must be conducted in accordance with the helicopter-simplified flight controls manufacturer's limitations, if published. If no slope limitations are published for the helicopter-simplified flight controls being used, parallel slope operations of approximately 5-10 degrees may be demonstrated. Landings with the helicopter-simplified flight controls facing downhill or uphill will not be tested during certification. A thorough review of the intended slope operations area must be conducted to ensure clearance from hazards.

VI. Performance Maneuvers

Task B. Straight-In Autorotation in a Single-Engine helicopter-simplified flight controls

The minimum entry altitude must be a least 500 feet AGL or a suitable higher entry altitude in strong wind conditions. Initiating a go-around as a result of an applicant's inability to complete this Task within the tolerances specified in the skill elements is considered unsatisfactory. Landing area safety concerns beyond the control of the applicant or evaluator that necessitate a go-around would not be considered unsatisfactory. The applicant and evaluator must not sacrifice the safety of flight and force a landing to complete this Task.

Task C. Autorotation with Turns in a Single-Engine Helicopter-Simplified Flight Controls

The minimum entry altitude must be above 700 feet AGL or a suitable higher entry altitude in strong wind conditions. At least two 90 degree turns in the same direction or one continuous 180-degree turn must be performed. The 180-degree turn refers to a change in direction with respect to ground track, and not an exact reciprocal heading. If the applicant does not roll out of the turn by 300 feet AGL then the evaluator must direct the applicant to perform a power recovery and initiate a go-around, and the Task is considered unsatisfactory.

VIII. Emergency Operations

Task B. Powerplant Failure at Altitude in a Single-Engine Helicopter-Simplified Flight Controls

The altitude, airspeed, and location must be considered so the helicopter-simplified flight controls is in a position to achieve a safe landing if an actual powerplant failure occurs. The minimum altitude to initiate a power failure must be at least 1,000 feet AGL with a power recovery completed by at least 500 feet AGL.

Task C. Approach and Landing with an Engine Inoperative (simulated) (Multiengine Helicopter-Simplified Flight Controls Only)

The evaluator must include this Task on the practical test for an applicant who provides a multiengine helicopter-simplified flight controls. The minimum altitude to initiate this Task must be at least 1000 feet AGL for this maneuver. The evaluator must conduct a preflight briefing with the applicant regarding the expectations of any simulated powerplant failure. See Appendix 2.

Task E. Vortex Ring State (VRS)

The evaluator must conduct a briefing with the applicant regarding the selection of a safe entry altitude, recognition of the onset of VRS, and recovery within the Task standards. The area must be free of obstructions should a landing become necessary.

Task F. Low Rotor Revolutions Per Minute (RPM) Recognition and Recovery

The evaluator must test the applicant orally on this Task if the helicopter-simplified flight controls used for the practical test has a governor that cannot be disabled. During the pre-flight briefing, evaluators must discuss avoiding any condition that may lead to rotor stall during the demonstration of this Task. If the skills are tested in flight, evaluators and applicants must ensure the helicopter-simplified flight control's main rotor system remains in a safe operating range in accordance with the POH/RFM. Evaluators must not test this Task during critical phases of flight (e.g., takeoffs or landings)